

CITY OF LIVERPOOL.



EDUCATION COMMITTEE.

REPORT

ON THE

MEDICAL INSPECTION OF SCHOOL CHILDREN
FOR THE YEAR
1920.

BY

E. W. HOPE, O.B.E., M.D., D.Sc.,

Medical Officer of Health, and Medical Officer to the Education Authority.

*(Approved by the Education Committee at its meeting on the
27th June, 1921).*

LIVERPOOL

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1921.

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STAFF OF THE SCHOOL MEDICAL DEPARTMENT.

MEDICAL STAFF.

MEDICAL OFFICER TO THE EDUCATION AUTHORITY.

EDWARD W. HOPE, O.B.E., M.D., D.Sc.

SENIOR SCHOOL MEDICAL OFFICER.

LESLIE KINGSFORD, M.D., D.P.H.

ASSISTANT SCHOOL MEDICAL OFFICERS (Whole time).

G. NORMAN ANDERSON, M.B., Ch.B., D.P.H. (Returned from Military Duty, March 3, 1919).

BLANCHE M. Z. SMART, M.B., C.M., D.P.H. Appointed August, 1919.

SAMUEL R. RICHARDSON, M.D., D.P.H. Appointed August, 1919.

G. EILEEN CHAMBERS, M.B., B.Ch., B.A.O. Appointed October, 1919.

DOROTHY E. HEWITT, M.B., Ch.B., B.Sc. Appointed October, 1919.

ETHELWYN M. WALTERS, M.B., Ch.B. Appointed January, 1920.

R. RIMMER, M.B., Ch.B., D.P.H. Appointed January, 1920. Resigned May, 1920.

JAMES McCLELLAN, M.D., F.R.C.S. Appointed January, 1920.

FRANCIS A. BELAM, M.D., Ch.B., D.P.H. Appointed May, 1920.

CHARLES J. MCCARTHY, M.B., Ch.B., D.P.H. Appointed May, 1920.

WILLIAM F. YOUNG, M.B., Ch.B., D.P.H. Appointed August, 1920.

RAYMOND GAMLIN, M.A., M.B., B.C., M.R.C.S., L.R.C.P., D.P.H., M.Hy. Appointed Sept., 1920.

GEORGE F. WALKER, L.R.C.P., L.R.C.S. (Temporary Officer).

ASSISTANT SCHOOL MEDICAL OFFICERS (Part time).

ALFRED THOMAS, L.R.C.P., L.R.C.S. (Temporary Officer).

E. CHRISTINE HANSON, M.D., Ch.B., D.P.H. (Temporary Officer).

F. S. PARK, M.B., C.M., L.S.A. (Relinquished duty, July, 1920).

GERTRUDE M. HUTTON, L.R.C.P., L.R.C.S. (Relinquished duty, July, 1920).

SPECIALIST OFFICERS (Part time).

Oculists :

WILLIAM EDWARD LIVSEY, M.D., B.C. Attends Defective Vision Clinics.

W. E. LIVSEY, M.D., B.C.

E. M. STOCKDALE, M.R.C.S., L.R.C.P.

H. HOLMES, B.A., M.B., B.C.

R. HUMPHREYS, M.B., C.M.

R. E. HARCOURT, M.D., M.Ch., B.A.O., F.R.C.S.

C. ALSTON HUGHES, M.D., Ch.B.

A. E. BURROUGHS, M.D.

D. P. H. GARDINER, M.B., B.Ch., B.A.O.,

HORACE MATHER, M.R.C.S., L.R.C.P.

Medical practitioners
who test the vision
of school children,
and prescribe
glasses as required
at their consulting
rooms.

Radiographer :

WALTER C. ORAM, B.A., M.D., D.P.H. Ringworm Clinic.

Operating Surgeon :

COURTENAY YORKE, M.D., M.B., B.S., F.R.C.S. Tonsils and Adenoids Clinic

Anaesthetist :

THOMAS EDWARD JONES, B.A., M.D. Tonsils and Adenoids Clinic.

SCHOOL DENTISTS (Part time).

PHILIP CAPON, L.D.S. (3 half days per week).

ALBERT E. WATSON, L.D.S. (3 half days per week).

JOHN TYSON, L.D.S. (6 half days per week).

REGINALD W. GICK, L.D.S. (6 half days per week).

RICHARD BARON, L.D.S. (3 half days per week).

NOTE.—Mr. CAPON and Mr. WATSON returned from Military Duty in March, 1919. Mr. TYSON returned from Military Duty in February, 1919. Mr. GICK was appointed in March, 1915. Mr. BARON was appointed in January, 1920.

SCHOOL NURSES.

F. RADCLIFFE, Superintendent Nurse.

*A. McVEIGH (Mrs.)

B. SAVAGE.

*Z. E. HIRNS.

M. K. WILLIAMS.

*B. M. SPELLER.

M. FRIEL.

†E. A. HUGHES.

M. CHAMBERS.

†A. M. REYNOLDS.

E. STEWART (Mrs.)

†T. DUFFY.

L. HAWKINS (Mrs.)

†E. McBRIDE.

K. GALLAGHER.

†S. HOBSON.

D. GARNER.

†M. CARR.

M. CUNNINGHAM.

†M. KEENAN.

H. HUGHES.

†J. BRIAN.

M. MANSELL.

†B. DUNDAS.

C. CLAGUE.

†B. DAVIES.

H. HALSALL.

†F. C. BUIE (Mrs.)

E. C. PARRY.

†A. CURRIE.

V. HEENAN.

†L. ROBERTS.

M. SMITH.

M. WAKEFIELD (Mrs.)

M. TAYLOR.

M. G. HUGHES.

J. BRODERSON.

O. WILLIAMS.

*Dental Helpers.

†Work at other School Clinics.

CLINIC HELPERS.

S. CRINGLE.

E. HARRISON (Mrs.)

A. POLLITT (Mrs.)

E. BLUNDELL.

M. BRINDEN.

E. DAVIES.

CLERICAL STAFF.

Chief Clerk : F. J. GELDART.

Second Class Clerks : J. H. PETER, C. G. DAVIES, C. CRESSWELL.

Third Class Clerks : T. EDGAR, A. McCALLUM, G. K. ASHLEY, S. MOORE,
W. A. COWELL, C. GRIFFITH.

Junior Clerks : D. D. COLLIER, F. NEEP, A. J. SUTHERLAND, S. BURKEY,
L. W. SHERIDAN.

Temporary Clerk : B. THOMPSON.

Shorthand Typist : C. R. BALL.

SCHOOL CLINICS.

- (1) NORTH CORPORATION SCHOOL. Opened, 1913. Extended, 1915.
Minor Ailments.
Defective Vision.
Ringworm (X-ray).
- (2) ERSKINE STREET. Opened, 1919. Extended, 1920.
Minor Ailments.
- (3) OLD SWAN PAROCHIAL ROOMS. Opened, 1919. Closed December, 1920.
Minor Ailments.
Defective Vision.
- (4) DENTAL HOSPITAL. Opened, 1914.
Dental Treatment.
- (5) ADDISON STREET SCHOOL. Opened, 1917.
Dental Treatment.
- (6) LODGE LANE. Opened, 1918. Closed, May, 1920.
Minor Ailments.
- (7) HARRINGTON SCHOOL. Opened, 1914. Closed, Dec., 1920.
Dental Treatment.
- (8) ST. GABRIEL'S SCHOOL. Opened, 1920.
Dental Treatment.
Minor Ailments.
- (9) GARSTON TECHNICAL SCHOOL. Opened, 1915.
Minor Ailments.
Defective Vision.
- (10) TIMPRON STREET. Opened, 1920.
Dental Treatment.
- (11) NORTH DISPENSARY. Opened, 1916.
Treatment of Enlarged Tonsils and Adenoids.

CITY OF LIVERPOOL.

EDUCATION COMMITTEE.

REPORT of the MEDICAL OFFICER to the Education Authority for the Year ended 31st December, 1920.

The Medical Officer begs to submit the following Report of the work of the School Medical Service for the year ended 31st December, 1920.

The form of the Report differs slightly from that of former Reports in order that, as far as possible, the information should be arranged on lines suggested in the Annual Report for 1919 of the Chief Medical Officer of the Board of Education and in Form 6 M. issued in December, 1920.

During 1919 the Staff had been increased to practically full strength, and it became possible to resume the inspection of the intermediate group (the 8 year old children); additional appointments were made during 1920 in order to cope with the duty of inspecting the pupils attending the Secondary and Day Technical Schools.

The arrangements for treatment were improved during the year by the opening of an additional Dental Clinic and a Minor Ailments Clinic, and the extension of one of the existing Minor Ailments Clinics. Other Clinics, it is anticipated, will be opened in 1921.

The following are the changes made in the Medical Staff during the year:—Doctors Rimmer, Ethelwyn Walters, and J. McClellan joined the staff in January, in place of Doctors H. Seddon, R. Hannah and J. P. Clarke, resigned. In May, Dr. F. A. Belam and Dr. C. J. McCarthy were appointed to succeed Dr. R. Rimmer and Doctors Hutton and Park (part-time temporary officers). Doctors W. F. Young and R. Gamlin subsequently joined the staff, mainly on account of the extra work associated with the inspection of Higher Schools.

At the end of the year, the School Medical Staff consisted of thirteen whole-time Medical Officers, one being a temporary Officer, and two part-time temporary Medical Officers, or, the equivalent of fourteen whole-time Officers.

The necessary additions to the Nursing Staff were made by the Health Committee, and the Clerical Staff was added to, in order to keep pace with the additional duties of the department.

The whole of the work of School Nursing has been carried out by the female staff of the Health Committee, with the exception of the visitation of the Garston Schools and the work of the Minor Ailments Clinics at Garston and at the North Corporation School, where the work is done by the staff of the Garston and of the Liverpool District Nursing Association, respectively.

The Health Committee's Staff working for the Education Committee has been from time to time increased, and at the end of the year numbered 38. This number is hardly sufficient, as the various Clinics take up the time of 16 of the 38 nurses.

The average number of elementary school children on the rolls during the year was 139,368, the average attendance being 121,469, or 87·2 per cent., as compared with 118,753, or 86·4 per cent., in 1919.

The Medical Officers have, at the routine inspections of pupils attending the elementary schools, inspected 42,034 children, of whom 19,525 were entrants, 6,412 intermediates, and 16,097 were leavers. These figures compare favourably with 27,890 inspected in 1919, and 38,709 in 1914, the year in which inspections reached the maximum. Of the 42,034 children inspected, 44·5 per cent. required medical treatment, or to be kept under observation on medical grounds.

CO-ORDINATION WITH OTHER HEALTH SERVICES.

Arrangements have been made with the Infant and Child Welfare Department of the Health Committee to transfer to the School Medical Inspection Department the records of all children under the supervision of the Health Department as soon as they become of school age. The Committee have fully realised the advantages, from the point of view of economy and popularity, of combining Clinics for children of and under school age in the same building as far as possible.

The School Nurses, who carry out home visiting on behalf of the Education Committee, belong to the staff of the Health Committee, and frequently in their visits come across children under school age who are in a neglected condition, or are suffering from debility. The former can be dealt with by the Health Committee, and the latter either advised to attend one of the Child Welfare Clinics, or referred to the Child Welfare Association, which has an efficient organisation in Liverpool for dealing with debilitated or crippled children, and works in closest co-operation with the Health and Education Departments.

There are at present no Nursery Schools in Liverpool; the rudimentary instruction at certain Day Nurseries is not officially recognised as Nursery School teaching.

MEDICAL INSPECTION OF PUBLIC ELEMENTARY SCHOOLS.

(a) Age Groups of the Children Inspected.—The three age groups required by the Board have been inspected, viz.:—Entrants at the ages 4, 5 or 6 years; Intermediates at the age 8 years (recommenced in March, 1920); and Leavers at the ages, 12, 13 or 14 years.

The following is a rough estimate of the number of children due annually for inspection:—Entrants, 17,000; Intermediates, 15,650; Leavers, 14,500; a total of 47,150.

(b) The inspection of the children has included the noting of all the items mentioned in the Board's Schedule of Medical Inspection.

(c) The steps taken towards the early ascertainment of crippling defects, apart from the routine examination of the age groups referred to above, have been the examination of special cases brought forward by the teachers and the examination of children absent from school. It is hoped, as mentioned later in the report, in the future to co-ordinate the work of the Department more closely with that of the Child Welfare Association, which is an organisation dealing with most of the cases of crippling of whatever variety.

(d) Medical Inspection in all schools, of necessity involves considerable disturbance of school arrangements. This is obviously more serious in those schools in which the inspection has to take place in one of the classrooms.

FINDINGS OF MEDICAL INSPECTION.

Uncleanliness.

Owing to the different methods of recording the results of medical inspection required by the Board during recent years, it is impossible to give the detailed figures and percentages which were included in the earlier Annual Reports. In those reports a

separate record was made of the number of children who had verminous heads or bodies, the presence of lice and nits being separately noted, as well as children who were badly flea-bitten and those whose bodies and clothing were in a dirty condition.

At the present time all such cases are included under the heading of uncleanness, requiring either immediate treatment or to be kept under observation, and in conformity with the Board's instruction as indicated in the Chief Medical Officer's last Annual Report, Appendix G, Table II, boys and girls are not differentiated.

Of the routine cases, 22 per cent. in 1919 and 21 per cent. in 1920 required treatment for uncleanness. Many of these cases were very dirty, and the School Medical Officers report that in certain districts the conditions are far from satisfactory.

To some extent this is the result of the staff of the School Nurses being insufficient to cope with the question of uncleanness in the poorer neighbourhoods. The Committee will be familiar with the proposals contained in the Liverpool Corporation Bill now before Parliament, and which have already passed the House of Lords. The increased demands for nurses at the Minor Ailments Clinics led to the nurses, who would otherwise have been attacking this problem, being transferred to the Clinics, their places not being filled by fresh appointments. The staff at the end of the year was four short of the necessary complement. It is obvious, however, that nothing the Health Committee may undertake can wholly relieve parents from the moral obligation to keep their children clean.

Tonsils and Adenoids.

The proportion of the children suffering from enlarged tonsils or adenoids, or both, reported as referred for treatment shewed a slight increase from 2·5 per cent. in 1919, to 3·1 per cent. in 1920, whilst those requiring to be kept under observation shewed an increase from 5·9 per cent. to 6·4 per cent. The very gross cases are now fortunately comparatively seldom met with.

The habit of mouth breathing remains common, though only 2·6 per cent. were considered to require special breathing exercises, as compared with 3·6 per cent. in 1919. These exercises are essential after the operation for adenoids, as the removal of these growths is not always sufficient to overcome the habit.

Tuberculosis.

At the routine examinations of the children, only 7 definite cases and 30 doubtful cases of pulmonary tuberculosis were reported, or ·02 per cent. and ·07 per cent. respectively, these figures being the final figures after the children had been examined by the Tuberculosis Officers, or after the re-examination by the School Medical Officers. The routine examinations also brought to light 81 cases of tuberculous glands, and 41 cases of other forms of tuberculosis, a total of 159 actual or suspected cases, or 0·4 per cent. of the children examined.

Amongst the special cases examined at the schools, 14 cases of phthisis, 17 cases of suspected phthisis, 36 of glandular tuberculosis, and 23 of other forms of tuberculosis were discovered.

Of the total number dealt with during the year, 182 doubtful or actual cases of tuberculosis were referred for further examination to the Tuberculosis Department, an increase of 50 on the number referred in 1919.

It will be seen from Table III in Appendix A that at the end of the year the total numbers of cases of pulmonary tuberculosis under observation were 438, all of which had been excluded from school; the numbers of cases of non-pulmonary tuberculosis known to the Department were 365, of which 81, whose physical condition enabled them to do so, were attending Public Elementary Schools, and 108 were attending Schools for Physically Defective children.

Ringworm.

The numbers of school children reported during the year as new cases of ringworm of the scalp were 586, but 109 turned out not to

be cases of ringworm, the majority of these being alopecia areata. There were, therefore, 477 actual cases, as compared with 429 in 1919.

At the end of the year, there were approximately 312 children away from school on account of this disease, as compared with 244 at the end of 1919, and 249 at the end of 1918.

This increase is somewhat difficult to account for, as although there were two Institutions for children which became infected during the year, the number of cases at these Institutions would not account for more than about one-third of the increase.

The large number of cases indicated in Appendix A, Table II, as seen as special cases were practically all seen at Inspection Clinics in connection with the examination of children absent from school on account of this disease.

Reported cases of ringworm of the body shew an increase, the number being 549 as compared with 441 in 1919.

Scabies.

The numbers of cases reported, namely, 1,237, were the highest on record, and compare with 1,104 in 1919, 1,179 in 1918, and 851 in 1917. As mentioned in several previous reports, a large proportion of the sufferers are away from school for months, a matter which has received the attention of the Committee on several occasions.

A leaflet has been drawn up on the subject for the assistance of parents, and it was arranged that children away from school on account of this disease should be seen at frequent intervals by the School Medical Officers. The leaflet is as follows:—

SCABIES OR ITCH.

Scabies is a disease which is caused by a small insect which burrows under the skin of the webs of the fingers, the wrists, arms, body, etc., and it is spread by contact with an infected person or with infected clothing.

Treatment can be carried out at one of the Skin or General Hospitals or Dispensaries, or by a private Doctor, but regular treatment is required.

The usual method of treatment consists in giving the child a hot bath at night time and cleaning the affected areas with a nail brush so as to open up the burrows. Sulphur ointment should then be rubbed well into the spots. This procedure should be repeated on the two following nights. If the condition is not cured after this the process should be again repeated in a week's time.

It is necessary to keep the affected child away from Day and Sunday school until the School Medical Officer has certified that the child is no longer infectious.

As soon as the child is excluded from school one of the Health Visitors will call and make arrangements for the removal of the whole of the child's clothing and bedding for disinfection, and it is desirable that this disinfection should be carried out again at intervals until the disease is cured.

Arrangements will also be made for the child to be examined at frequent intervals by one of the School Medical Officers in order that re-admission to school may be permitted as early as possible.

Other members of the household, especially children, must be very careful to avoid infection, but should they become infected similar treatment to that outlined above should be at once carried out.

External Eye Diseases.

The proportion of cases discovered at the routine inspections was the same as for the preceding year, namely, 2 per cent. Blepharitis and conjunctivitis form the large majority of these cases, and not infrequently necessitate the exclusion of the children from school.

Defective Vision and Squint.

Of the Intermediates and Leavers, 25·5 per cent. were found to have squint or defective vision, as compared with 27·7 per cent. last year, when the Intermediates were not examined, but more than twice as many special cases suffering from these defects were dealt with.

Ear Disease and Deafness.

The most important of these defects is otitis media, and 1·2 per cent. of the children were found at the routine inspections to be suffering from this defect. The defect often persists for years, and may eventually lead to serious complications. In a large proportion of the cases the condition is reported to have developed during or just after an attack of infectious disease, especially scarlet fever or measles.

Dental Defects.

At the ordinary routine inspections of the children, the School Medical Officers still examine the condition of the teeth, and when these are found to require treatment the parents are advised to secure treatment from private dentists, or at the Dental Hospital, unless the children are of Clinic age and attend schools served by the Clinics.

As the Clinics extend their operations, fewer children will be referred by the School Medical Officers, but the numbers are still large.

During the year 4,986 first notices were sent to parents as the result of these inspections.

Exclusions from Schools.

As shewn in the following table, 2,376 cases were excluded from school for varying periods by the School Medical Officers during the course of their school inspections or at the various Clinics. The

numbers excluded were almost double those of the previous year, owing to the greater numbers examined, the increase being specially marked in the case of eye diseases.

Eye diseases	...	...	...	653	.
Scabies	...	...	...	446	
Ringworm of scalp	...	...	...	172	
Ringworm of body	...	...	...	118	
Other skin diseases	...	...	...	332	
Infectious diseases	...	...	...	152	
Tuberculosis (all forms)	...	...	...	56	
Chest conditions (non-tuber.)	...	...	...	57	
Pediculosis	...	...	...	108	
Otorrhoea	...	...	...	18	
Miscellaneous defects	...	...	...	264	
					<hr/>
Total	...	...	...	2,376	
					<hr/>

INFECTIOUS DISEASE.

All enquiries into the prevalence of infectious disease are undertaken by the Public Health Department, the duty being specially allotted to one of the Assistant Medical Officers of Health. The Teachers and School Attendance Officers notify the Medical Officer of Health immediately any case is discovered, and the home is visited in the first instance by a member of the male or female Sanitary Staff, unless the nature of the suspected illness calls for the immediate investigation of the Medical Officer. Individual children suffering from infectious disease are excluded for a definite

period, contacts also being dealt with in accordance with arrangements which were made some 10 or 12 years ago, and which, with slight modifications, have proved to be quite satisfactory. See Appendix C.

The Infants' Departments of all the schools were closed on account of measles from the 16th March until the Easter Holidays, and, in addition, the Infants' Departments of 21 schools, with one exception, were closed during February and March for approximately a fortnight, chiefly on account of measles.

The number of school cases reported during the year were:—Measles, 11,448; Whooping-cough, 2,804; and Scarlet Fever, 1,905; as compared with 1,780, 478, and 1,546, respectively, for 1919. The outbreak of Measles was the most severe for nine years.

FOLLOWING-UP.

In order to secure that the children shall receive treatment as soon as possible, the parents of the children are visited by certain official or voluntary visitors as follows:—

(1) School Attendance Officers.—These officials follow up defects for which the Committee have provided special treatment facilities, namely, defective vision, enlarged tonsils or adenoids, ringworm cases suitable for X-ray treatment, and dental cases referred by the School Dentists. During the year 21,838 cases were referred, two-thirds of these being dental cases. These officers also follow up the cases which are absent from the various Clinics, to ascertain the reason for their non-attendance, and to secure their future attendance.

(2) School Nurses.—The remainder of the medical cases, with some exceptions referred to below, and all the verminous and neglected children, are followed up by the School Nurses on the Health Committee's staff. During the year 18,206 were so referred, of which two-fifths were for medical defects.

(3) Care Committees are in existence in connection with three schools, and follow up all the medical defects except cases of communicable diseases, and cases referred to the Child Welfare Association or to the Tuberculosis Department.

(4) The Child Welfare Association has rendered valuable aid in following up and providing the necessary treatment for children needing special orthopaedic treatment or surgical appliances, and those requiring special tonic medicine, extra nourishment, or convalescent treatment. Some 630 cases, more than double those sent in previous years, were referred to the Association. In 120 cases arrangements were made for the children to be sent to a Convalescent Home.

(5) The Tuberculosis Department has dealt with some 182 cases referred for diagnosis and, if necessary, treatment.

(6) Cases living in Bootle, or in the Lancashire County, have been referred to the School Medical Officers of those Authorities for following up.

Table I gives the result of the following up as reported by the visitors undertaking the duties.

It will be appreciated that these visitors have to rely entirely upon the parents' statements as to whether treatment has been carried out or not, but the figures approximate closely to those prepared from the records of the Medical Officers' re-inspections at the schools.

Table I.

"Following up" Agencies.	Carried over from previous year.	Referred during 1920	Treated.	Treatment refused or evaded.	Left School, etc.	Total reported upon.	Cases still under observation at end of year.
SCHOOL ATTENDANCE STAFF—							
Vision	1,234	5,158	3,922 (61.36%)	610 (9.54%)	385 (6.02%)	4,917	1,596
Dental : School Dentist's Cases	3,531	14,175	7,220 (40.78%)	4,955 (27.98%)	219 (1.23%)	12,394	5,312
Tonsils and Adenoids	391	2,505	1,228 (42.40%)	839 (28.97%)	151 (5.21%)	2,218	678
FEMALE SANITARY STAFF—							
Medical Defects	3,408	7,166	4,773 (45.14%)	2,550 (24.12%)	602 (5.69%)	7,925	2,649
General Neglect	1,937	8,182	7,619 (75.29%)	—	58 (0.57%)	7,677	2,442
Verminous	809	2,858	2,751 (75.02%)	—	22 (0.60%)	2,773	894
OTHER AGENCIES—							
Medical Defects	—	958	460 (48.01%)	116 (12.11%)	63 (6.58%)	639	319

TREATMENT.

Uncleanliness.

The number of individual children found unclean at the Routine or Special Examinations at the schools was 11,060, the total number of examinations by the School Nurses *re* uncleanliness during the year being 121,039, and the average number of visits paid by the Nurses to each school 43.9.

Uncleanliness of the head and body requiring treatment was reported in 8,535 and 2,940 instances, respectively, 83.6 per cent. of the head cases and 89.2 per cent. of the body cases being treated.

During the year 4,695 children were cleansed at the Cleansing Station at Mansfield Street, and 5,757 at Beacon Street, a total of 10,452, compared with 5,344 and 5,051 respectively in 1919.

The number of statutory notices to the parents was 673, resulting in 394 being cleansed by the staff at the Cleansing Stations above-mentioned, and 279 children by the parents. No legal proceedings were taken during the year.

Additional facilities for cleansing children are much needed, especially in the suburbs, and the matter, so far as merely dirty children are concerned, has been under the consideration of the Baths Committee.

The methods of dealing with verminous children had to be somewhat modified during the year. During the war, partly owing to the absence of the fathers, and partly to difficulty in keeping the Nursing Staff up to the proper strength, there was a distinct falling off in the standard of cleanliness, with the result that, when the staff was reinforced in 1920, the difficulties encountered were greater than had been the case for many years. Larger numbers of bad cases were met with, and many of those for which notices were served failed to be cleansed by the parents, and had to be cleansed by the Staff. Under Section 35 of the Local Act, as in Section 122 of the Children Act, 24 hours are allowed the parents in which to

cleanse the children after receipt of the statutory notice. So far as the head is concerned, the cleansing cannot be effected within that period without, in many instances, cutting the hair. This procedure the parents as a rule failed to carry out, and children had, therefore, to be removed to the Cleansing Stations, where as much of the hair was cut off as was required to effect the cleansing. In certain neighbourhoods objection was taken to cutting the hair, and this procedure was temporarily dropped so far as the girls were concerned.

Modification of the Section is urgently required throwing on the parents the obligation to cleanse the children and imposing a penalty for failure to cleanse after the first notice. Twenty-four hours is rather too short a time in which to cleanse the head properly without cutting the hair, and the time allowed the parents might be made four or five days. At the same time, parents willing to avail themselves of facilities provided by the Health Committee for cleansing will be allowed free use of such facilities.

In the new Omnibus Bill promoted by the City Council, clauses embodying these suggestions have been inserted; the matter is vitally important.

The modification of the procedure at present in force refers only to girls with verminous heads; instead of sending the statutory notice, a letter is sent to the parents warning them that unless the child is cleansed within four days, the child will be excluded from school and proceedings taken under the Bye-Laws for non-attendance. This is a cumbersome proceeding, and may entail exclusion from school, which was not necessary when proceedings were taken under the Act.

Clothing and Footgear.

During the past few years the children have shown a considerable improvement in their clothing and footgear, owing to the improved circumstances of the parents in the City generally. During the year in question 2,718 cases of defective clothing and 495 of defec-

tive footgear were reported as requiring treatment, and, after having been visited by the nurses, 89.3 per cent, and 71 per cent., respectively, were reported to have had these defects attended to.

Medical Defects.

Tables IV, A, B, C, D and F of Appendix A give the information with regard to the treatment of the medical defects so far as could be ascertained from the records available. The Tables, except IV, D, whilst including all the particulars asked for by the Board, give additional information so as to make the tables more complete and to make the returns comparable with those of previous years.

Table IV, F gives the particulars relating to medical defects other than Minor Ailments, Defective Vision, Nose and Throat, and Dental Defects. The most numerous of these defects referred to in Table IV, F were Dental Defects discovered by the School Medical Officers, and for which clinic treatment, chiefly owing to the limited number of dental clinics, was not available. Next in frequency came Anaemia, Non-Tuberculosis Lung conditions, Malnutrition and various Deformities, in the order named.

Minor Ailments.

Owing to the premises being required by the owners for other purposes, two Clinics, one in the Lodge Lane area, and one at Old Swan, had to be closed, and suitable accommodation being very difficult to obtain, it was not possible to replace these Clinics during the year.

A new Minor Ailments Clinic was opened at the end of the year in the Mill Street area, which, of all the neighbourhoods of the City, has, perhaps, the greatest need of such a Clinic. Unfortunately, suitable premises could not be secured until the Committee gave up, in the summer, a temporary school which was housed in the basement of St. Gabriel's Church, in Beaufort Street. After improvement in the lighting of the main Clinic room by the use of prismatic glass, and certain other alterations had been made, the premises were opened in December, and the Clinic at

once proved very popular, and, with the exception of Erskine Street, the most numerously attended of all the Clinics. The latter Clinic, owing to the large numbers in attendance, had to have its accommodation considerably extended in December, and the administration subsequently was much more satisfactory. The daily attendance at Erskine Street had increased to over 300 on several occasions in September and November, the largest attendance on one occasion being 340.

The north end of the City, including the Kirkdale, Walton, and North Everton districts, is the only part of the City for which it has not as yet been possible to make provision.

On Saturdays, the attendances at all the Clinics were extremely small, being an average of 8 for 1920, and the following table gives the average daily attendances, both including and excluding Saturdays.

The cases treated at the Clinics included cases of external eye disease (chiefly blepharitis and conjunctivitis), impetigo, septic sores, otorrhoea, minor injuries, etc.

Table II.

CLINICS.	New Cases.	Total No. of Attendances.	Average daily attendance.	
			Excluding Saturdays.	Including Saturdays.
NORTH CORPORATION	1,982	19,863	92	79
GARSTON	1,531	21,226	97	85
LODGE LANE (Closed May, 1920) ...	779	8,546	104	Not open on Saturdays.
ERSKINE STREET	3,448	43,420	197	168
OLD SWAN (Closed Dec., 1920) ...	1,473	22,571	108	93
ST. GABRIEL'S (Opened Dec., 1920)	124	504	62	56
TOTALS FOR 1920	9,337	116,130	122	106
TOTALS FOR 1919	6,539	80,123	?	86

Tonsils and Adenoids.

The Clinic for the treatment of enlarged tonsils and adenoids was opened on 91 occasions, 954 cases being treated, or an average of 10.5 cases per occasion.

In 34 cases (3.5 per cent.) hæmorrhage occurred after operation, in three of these after the children had left the Clinic on the day following the operation. It was necessary to keep 14 of the 34 cases at the Clinic for a second night.

The number of children who attended the Clinic prepared for operation was 1,218, but in 189 (15.5 per cent.) operation was found not to be necessary, in 34 cases operation was deferred as the children were not physically fit for it, and in 41 cases operation was postponed as the accommodation was fully occupied. In order to secure that 12 cases shall be operated upon on each occasion, 17 cases are summoned, 2 of these cases attending on the understanding that the operation will only be performed if the numbers fit for operation on that day are not in excess of the accommodation.

Some difficulty was experienced during September in securing enough cases to keep the Clinic open on two occasions weekly. Subsequently the numbers increased so rapidly that it was necessary in December to hold three Clinics weekly.

The various general and special hospitals have ceased to treat school children suffering from these defects, and have referred all such cases to the Education Committee for treatment. Cases which are able to afford private treatment are treated by private doctors, but the great majority are now dealt with by the Committee.

Tuberculosis.

Pulmonary cases are referred to the Tuberculosis Department, and the necessary treatment, either Sanatorium or Domiciliary, is arranged for by that Department. Non-pulmonary cases are also dealt with similarly, either directly or indirectly, through the

medium of one of the general or special hospitals or the Child Welfare Association. Many cases are treated at Leasowe or Heswall, and a large number remain at home and receive Out-Patient treatment at one of the Hospitals. As shown in the section on Crippled Children, many are in attendance at the Schools for Physically Defective children.

Ringworm of the Scalp.

The X-Ray Clinic was opened on 39 occasions, and 108 new cases were treated, an average of 2.77 per occasion, as compared with 108 in 1919, and 105 in 1918.

During the first half of the year, the Clinic had to be closed on several occasions owing to the shortage of cases, but during the Autumn the cases came in more rapidly, and the accommodation at the Clinic was severely taxed.

A certain number of cases were treated by X-Rays at one of the Hospitals, but the large majority of the cases, as in previous years, received drug treatment.

Scabies.

No special cleansing stations or treatment centres have yet been provided to deal with this disease, but patients have at times been admitted to Municipal or other institutions for treatment.

Health Visitors following up the cases have been instructed to arrange for more frequent disinfection of clothing and bedding, but despite this the numbers of cases shew an increase, whilst the average duration of the cases is longer than it need be. For instance, out of 251 children away at Midsummer, 118 had had the disease for less than three months, 66 had suffered for between three and six months, 52 between six and 9 months, whilst 15 had had the disease over nine months.

A recent enquiry into the length of absence of certain children owing to this disease shewed that in 132 cases the average absence was just over eleven weeks.

Defective Vision.

The Committee's scheme for treatment includes three Clinics, one a Central Clinic at the North Corporation School, one at Garston, and one at Old Swan, the Central Clinic being open usually on four afternoons a week, and the other two, which are in the suburbs, as occasion requires, usually once in about three weeks. In addition to these Clinics, the Committee has arrangements with nine private doctors with ophthalmic experience to examine and prescribe glasses for school children at their own consulting rooms at a fee of seven shillings and sixpence, and 2,376 new cases were treated by these doctors during the year, an increase of 475 cases over those of the previous year.

At the Clinics, 377 new cases and 1,576 re-examination cases were dealt with, as compared with 344 and 1,680 respectively in 1919. Probably owing to the re-commencement of the examination of the intermediate group a larger number of new cases than usual were brought to light and received treatment.

Once glasses have been obtained, the responsibility passes in the main from the doctor to the parent and the teacher, both of whom are in close and constant touch with the children, and are in a position to see that the glasses are worn constantly. It is regrettable to find that a large proportion of the children, from one cause or another, attend school without their glasses. An enquiry carried over several months during 1920 showed that out of 3,636 cases 36 per cent. of the children were not wearing their glasses—11 per cent. because the glasses had been broken or lost, and 25 per cent. from forgetfulness or because they did not like them. Others, who were wearing their glasses when seen by the School Medical Officer, admitted taking them off as soon as they got home, and leaving them off entirely at the week-ends and during holidays. Even those who recognised the benefit of their glasses were frequent offenders in this respect. The figures differ greatly in the

different schools; in one school it is very rare to find a child without his or her glasses unless they have been broken or lost; in another school drawing scholars from a very similar type of district, it is quite the exception to find a child wearing his or her glasses.

Reference may be made to the question of amblyopic eyes. As the result of the experience of the past eight years, during which continuous records of a very large number of cases treated under the above scheme have become available, it would appear that the cases shewing marked improvement in the vision or, in the case of the squint, in a squinting eye, are comparatively few. Probably in most cases the defect is not recognised and treated sufficiently early in life. Unfortunately, the usual tests for acuity of vision are not applicable when the entrants are examined at the age of five years. It is possible, however, that the amblyopia may, in many instances date back from an even earlier age. Such children have their eyes refracted sooner or later, and, in addition to the provision of suitable glasses to correct the error of refraction, they are given printed instructions as to the method and necessity of practising the defective eye, and the parents have the importance of the matter explained to them. The children seldom carry out the instructions for more than a few days, and the parents, from lack of interest, or lack of time, owing to domestic duties, rarely co-operate with the oculist in seeing that the instructions are complied with.

In July the contract price of lenses was reduced owing to prices generally having fallen somewhat. Arrangements were made at the same time for the supply of nickel frames at a slightly increased cost, should parents desire frames of a better quality.

Ear Disease.

The question of the satisfactory treatment of school children suffering from suppurative otitis media (discharging ears) has for years been a difficult problem, and an Aural Clinic, where advice and minor treatment will be given, has been approved by the Board, and will, it is expected, be opened in May, 1921.

Mr. Courtenay Yorke, the surgeon who attends the Tonsils and Adenoids Clinic at the North Dispensary, has been appointed to the Aural Clinic, which will be held in the same premises.

At the present time a considerable number of the ear cases attend the various Minor Ailments Clinics, and it is hoped that the treatment at these Clinics will be closely linked up with that at the Aural Clinic when opened.

Cases requiring operation will, as at present, have to be dealt with at one of the Special or General Hospitals.

So far as the cases under observation in 1920 were concerned, out of 1,292 reported upon, 1,060, or 82 per cent., received treatment, 65 cases improved without special treatment, and 167 received no treatment and were in *statu quo*.

In the cases in which adenoids are thought to cause the defect, operation for their removal is undertaken, frequently with satisfactory results.

Dental Defects.

A new Dental Clinic in Timpron Street was opened in June to serve the Smithdown Road area, and the attendances at this Clinic, as well as at the older established Clinics, have been encouraging.

In December, the Clinic which had been held for some years at the Harrington Council School, Stanhope Street, was removed to larger and more convenient premises in the old St. Gabriel's School, Beaufort Street.

The Netherfield Road Dental Clinic, referred to in the last Annual Report, was not opened during 1920, owing to delay in getting the special approval of the Board of Education.*

An additional part-time dentist was appointed to act at Timpron Street Clinic, and this brought the numbers of the Dental Staff up to five, all part-time officers, two of these working for six sessions and three for three sessions per week.

*This Clinic was opened on May 2nd, 1921.

The arrangement by which the Nurses who assist at the Clinics have, after some demonstrations at the Schools and at the Clinics, carried out the examinations at the Schools in order to select the cases requiring treatment, has been continued and has given general satisfaction. This arrangement has set free the Dentists for the more important work of treatment, and has thus economised the time of highly-trained officers.

The opening of the additional Clinic resulted in more inspection and treatment being carried out as shewn in the following summary:—

	1919.	1920.
Number of children examined in School	13,481	17,964
Number of children requiring treatment	10,539 (78·2%)	14,175 78·9%)
Number of cases accepting treatment	5,328	7,522
Number of cases treated	4,515	5,218
Number of Schools visited	53	55

The results of the treatment are shewn in Table IV(D) of Appendix A.

The present Clinics deal, however, with but a small proportion of the school population requiring treatment, but difficulty in finding suitable premises at the present time has been an important obstacle to the extension of the Clinics. Negotiations have been opened with the Dental Hospital for an extension of the existing Clinic.

Reference has been made elsewhere to the fact that the School Medical Officers still refer for treatment any dental cases they may find, and it appears that, including those brought forward from 1919, there were altogether 10,512 thus under observation. Of these, 7,186 were reported upon *re* treatment, and 3,448 (48 per cent.) were reported as treated (70 per cent. satisfactorily), whilst of the remainder, 1,127 (14 per cent.), had improved without special treatment, leaving 38 per cent. untreated and unimproved.

BLIND, DEAF, DEFECTIVE AND EPILEPTIC CHILDREN.

(a) During the past twenty years arrangements have been in force for ascertaining what children could not suitably be educated in an ordinary Public Elementary School, as, in addition to the powers imposed by the Elementary Education (Blind and Deaf Children) Act, 1893, advantage was taken of the permissive powers given by the Elementary Education (Defective and Epileptic Children) Act, 1899. The practice established was incorporated in the arrangements adopted by the Local Education Authority, under Section 1 (1) of the Act of 1899, and Section 31 (1) of the Mental Deficiency Act, 1913, and sanctioned by the Board of Education. The Education Committee receives notice of special cases also from officials of other public bodies, and from workers connected with religious, philanthropic, and social bodies. The arrangements appear to have secured a complete survey of all special cases within the Committee's area, and it does not appear necessary to provide additional machinery for ascertaining cases.

(b) The following Special Schools are carried on under the Liverpool Education Committee:—

Name.	Department.	Accommodation.	Year ended 31/3/21.	
			Average No. on Rolls.	Average Attendance.
Chatham Place	Mental Defects.....	129	144·9	122
	Physical Defects	115	138·7	108
Dingle Lane	Mental Defects.....	100	116·88	99
	Physical Defects	100	107·14	86
Fontenoy Street	Mental Defects.....	67	69·54	56
Orwell Road	Mental Defects.....	95	102·41	85
	Physical Defects	81	108·05	79
Whitefield Road	Mental Defects.....	92	105·53	89
	Physical Defects	87	107·39	78
Bowring House Residential School	Physical Defects	50	48·41	47
Crown Street	School for Deaf	200	149·32	131
Birchfield Road	Classes for partially Blind	50	48·28	39

The Education Committee also maintains six beds at the Liverpool Greenbank School of Recovery (for heart cases), and six at the West Kirby Convalescent Home (surgical tuberculosis cases).

At each of the Special Schools for mentally and physically defective children an After-Care Committee has been established, and the cases are followed up.

Unless notified to the Mental Deficiency Authority at an earlier age, the mental cases remain under the supervision of the After-Care Committees until attaining the age of 21, when, if supervision is still considered to be necessary, the cases are transferred to the Local Association for the Care of the Mentally Defective, established under the Mental Deficiency Act.

Defective Vision Classes.

No increased accommodation has yet been provided for the education of the Partially Blind, though the two classes held at Birchfield Road Council School are only able to deal with 50 children, or approximately 18 per cent. of the total cases. The necessity for making additional provision for these children was first drawn attention to in the Annual Report for 1914, shortly after the original classes had been opened.

The Education Committee in 1918 authorised additional classes, and the delay in opening these classes is regrettable. The numbers on the waiting list at the end of the year were 231, a slight increase on the 1919 figures, but it is important to note that 79, or one-third of these cases were reported as urgent cases.

In particular, provision is urgently required for children attending voluntary schools who are at present precluded, however serious their eye condition may be, from attending these special classes, except by special permission of the Committee on the written application of the parents.

The ocular defects from which the 50 children on the register at the end of the year were suffering were as follows:—Myopia 25; myopia with choroiditis 1; choroidal atrophy 4; optic atrophy 4; interstitial keratitis 5; keratitis 1; cataract 5; albinism 2; corneal nebulae 2; (results of) ophthalmia neonatorum 1 case.

The average age of the children attending the classes was 12 years. Fifteen were admitted during the year, and 13 were discharged.

CO-OPERATION OF PARENTS.

The parents are all invited to attend the routine examination of the entrants. In the case of older girls, they are instructed to inform their parents that they are due for medical examination, and subsequently to tell their teachers whether their parents desire to attend or not. In the case of boys other than entrants, invitations are not generally sent to the parents. About 50 per cent. of the parents of the entrants attend, but very few parents of older children.

The parents are informed verbally, or by printed notice, of any defects which the medical inspection may have brought to light, and subsequently visits to the parents are paid by official or voluntary visitors, as mentioned in the section on "Following up," for the purpose of urging the parents to secure treatment when necessary.

HIGHER SCHOOLS.

Medical Inspection.

There are in Liverpool eight Secondary Schools provided by the Committee, with 4,512 on the rolls, two of these being mixed schools, and six Secondary Schools aided by the Committee with 1,837 on the rolls. The Managers of four of these latter requested the Committee to provide medical inspection and treatment, in

accordance with Section 18 of the Education Act, 1918, and arrangements were made to commence the inspection of these schools in 1921.

There are also three Day Junior Technical Schools provided by the Committee, and the inspection of the pupils of these, as well as of those of the provided Secondary Schools, was carried out during the year in accordance with the requirements of the Act and of the Board of Education.

New admissions to these schools after April 1st, 1920, were fully inspected, all the items of the Board's schedule being dealt with except colour sense, which was left over until the pupils are somewhat older.

The inspection did not materially interfere with school arrangements, there being suitable accommodation in most of the schools.

Review of Facts disclosed by Medical Inspection, etc.

The chief defects discovered were defective vision and dental trouble, as in the case of the elementary school children. A larger proportion of the pupils were noted to have various deformities, especially flatfoot, than in the elementary schools, but possibly this is due to the fact that the inspection is carried out under better conditions.

There were no objections to the medical inspection of the pupils, one of the school rules, to which parents must agree before pupils are admitted, being that each pupil must be submitted to examination by the Committee's Medical Officers when and as required.

The following-up was not undertaken as in the Elementary Schools by visits to the homes, but the Head Teachers were asked to get into touch with the parents and bring pressure to bear where necessary.

The tables referring to the Higher Schools are given in Appendix B.

Treatment.

Clinic treatment is thrown open to those pupils whose parents can not afford private treatment, and in the case of defective vision, special arrangements have been made with certain oculists to treat the pupils at a reduced fee, where the parents are unable to afford the full fee. The glasses can be obtained at contract price from the Committee's opticians.

In the case of certain minor deformities, advantage is taken of the fact that a gymnastic instructor is attached to most of the schools, and the School Medical Officer advises the adoption of certain remedial exercises where such are applicable.

In most cases the parents have shewn themselves anxious to have defective children treated as soon as possible, and have been grateful for having the defects pointed out to them. A considerable number of the girls' parents attended the inspection. The parents of the boys were not generally invited, but if some special defects were found, which it was desirable to explain verbally to the parents, the parents were asked to attend.

EMPLOYMENT OF SCHOOL CHILDREN.

1.—Conditions of Employment.

Mainly as the result of the compulsory earlier closing of shops, the hours of employment have greatly improved of recent years, and it is now seldom the case that children are required to work later than 7-30 p.m., whereas 9-30 p.m. or 10 p.m. used formerly to be quite frequently the closing time of shops. Comparatively few cases of illegal employment have for the past three years been brought to light.

It is found, however, that from time to time quite young children are employed. In one such case, in which it was proved in Court that a boy of eight years of age was employed in delivering milk for his father before school hours, the case was discharged by the magistrate with a caution.

It is estimated that about 2,000 school children are employed for the purpose of gain, and that about 600 of these are employed before school hours in delivering milk or papers, etc.

At the end of March all the licences for street trading by school children were cancelled in accordance with Section 13(1)(ii) of the Education Act, 1918. Attention has been drawn in previous Annual Reports to the pernicious nature of this form of employment, and its prohibition for school children can result in nothing but good.

New Bye-Laws relating to employment of children, framed under the Employment of Children Act, 1903, and the Education Act, 1918, have been approved by the Home Office, and come into force on February 1st, 1921. These Bye-Laws, amongst other provisions, arrange for (1) the registration of employers, and children employed (certain minor employments excepted); (2) the prohibition of certain forms of employment, and (3) the certificate of fitness by the School Medical Officer before any child may be employed before school hours.

It is unfortunate that it was not possible, under the existing law, to include in the Bye-Laws a clause prohibiting the employment of children who may be suffering from certain communicable skin conditions, such as scabies or ringworm.

The Head Teachers of the schools will keep lists of all employed children registered, and it will be one of the duties of the School Medical Officers to see all such children at each inspection of the schools, and to report any instances in which the employment appears to be doing the children harm. These special examinations will entail a considerable increase in the work of the Medical Department.

A few special examinations during the year have been made with regard to the licensing of certain children for theatrical performances.

2.—Co-ordination with Juvenile Employment Department and Certifying Factory Surgeon.

The medical records of the Medical Department are always available for the Juvenile Employment Department, and from time to time children are specially examined at the request of this Department.

As there are no Continuation Schools at present in Liverpool, the necessity for co-ordination with the Factory Surgeon is not so great as it will be in the future.

3.—Physical Condition of Employed Children.

A few cases during the year were found to have defects which required the prohibition or, at least, limitation of their employment, but in the great majority of cases there was no evidence that the employment had any deleterious effect. In some instances it was noticed that children employed before school hours were fatigued and listless at their lessons. These cases will be more easy to control when the new Bye-Laws come into force.

CRIPPLED CHILDREN.

At the request of the Board of Education an enquiry was carried out during the summer into the frequency, causation, treatment, etc., of crippling in children of school age, i.e., from 5 to 14. Very few children attending Private Schools or Secondary Schools have been considered from the point of view of the enquiry, owing to the fact that these schools had not been subject to medical inspection, but it is not thought that this will materially affect the figures. A few children of the age of 14 have been included as they were on the school rolls at the time of the enquiry.

The total number of children dealt with in the Report is 1,770, of whom 1,694 were between the ages of 5 and 14, and 76 were 14 years of age. This represents approximately 12.5 per 1,000 of the school population at these ages.

At the outset it is necessary to express appreciation of the very great assistance rendered by Miss Beavan and the staff of the Child Welfare Association, and by the Head Teachers of the various Special Schools, in giving the particulars relating to a large proportion of the cases. Without this assistance the enquiry would have been very incomplete. A large number of home visits by the School Nurses were necessary in order to complete the information as to the history and nature of many of the cases.

Crippling, for the purposes of the enquiry, included all cases in which there was marked deformity of bones or joints, or limitation of the action of any of the skeletal muscles, but in addition there were included cases of glandular and abdominal tuberculosis and of heart disease, in which the children either were fit only to attend schools for physically defective children (P. D. Schools) or were quite unfit to attend any school.

The enquiry was consequently more or less limited to the types of cases for which schools for physically defective children or open-air day or residential schools are in the main suitable, but with the omission of cases of chorea, malnutrition, and debility.

The cases can be classified under five main headings:—Non-Pulmonary Tuberculosis, Paralysis, Rickets, Other Deformities, and Heart Disease, subject to certain limitations which will be referred to in dealing with each group.

The enquiry gives for the first time some idea of the prevalence of crippling, and of some of the problems which await solution in the future, and the Report is considered under the following headings:—

- (1) Numbers and age distribution of the cases with the approximate age periods at which the crippling was first noticed.
- (2) Methods of "Following Up" in order to secure treatment.
- (3) Methods of treatment available.
- (4) Causation.
- (5) Educational arrangements.
- (6) Suggestions for future developments.

1.—The Age Distribution of Cases and the Age at Onset.

Table A gives the numbers of the cases reported at each age, classified according to sex and the various defects, whilst Table B gives in percentages the age distribution of the cases, classified according to the five main groups. From Table E it will be seen that in 636 cases, or 35.9 per cent. of all the cases reported upon, the crippling was the result of Surgical Tuberculosis; in 422 cases (23.9%) Paralysis was the cause; in 274 (15.5%) the crippling was due to Rickets; in 195 (11%) it was associated with other forms of Deformities, whilst in 243 cases (13.7%) it was due to Heart Disease.

From Table B it will be noticed the ages at which the cases most commonly occurred were 7 and 8, 12 and 13, 9 and 6, in that order.

Table B.
Age Distribution in Percentages.

Age.	Tuber- culosis.	Paralysis.	Rickets.	Deformi- ties.	Heart.	All Cases.
5	7.3	3.1	17.9	7.2	3.3	7.5
6	9.0	9.5	16.1	12.8	5.3	10.1
7	11.1	19.0	19.6	12.8	6.2	13.6
8	12.6	18.2	13.5	7.7	9.5	13.1
9	10.9	13.0	7.3	9.2	10.7	10.6
10	10.2	7.1	9.1	9.2	9.5	9.1
11	11.1	8.8	4.0	9.8	11.1	9.3
12	11.7	7.8	5.1	13.9	20.6	11.2
13	12.9	7.3	5.5	12.8	18.5	11.2
14	3.2	6.2	2.9	4.6	5.3	4.3

Table C gives the ages at which, according to the history, the defects were first noticed, whilst Table D gives the approximate ages at onset in percentages.

Table A.

AGE DISTRIBUTION OF THE CASES.

TUBERCULOSIS.												PARALYSIS.												RICKETS.			DEFORMITIES.												HEART DEFECTS.												GRAND TOTALS.			
GLANDULAR.				ABDOMINAL.			BONES.			JOINTS.			ALL FORMS.			INFANTILE.			OTHER FORMS.			ALL FORMS.						CONGENITAL.			TRAUMATIC.			OTHER FORMS.			ALL FORMS.			CONGENITAL.			ACQUIRED.			ALL FORMS.								
Age.	M.	F.	Totals.	M.	F.	Totals.	M.	F.	Totals.	M.	F.	Totals.	M.	F.	Totals.	M.	F.	Totals.	M.	F.	Totals.	M.	F.	Totals.	M.	F.	Totals.	M.	F.	Totals.	M.	F.	Totals.	M.	F.	Totals.	M.	F.	Totals.	M.	F.	Totals.	M.	F.	Totals.	M.	F.	Totals.	M.	F.	Totals.	M.	F.	Totals.
5	9	3	12	4	1	5	6	7	13	12	7	19	31	18	49	5	5	10	3	...	3	8	5	13	24	25	49	5	3	8	...	1	1	2	3	5	7	7	14	3	1	4	1	3	4	4	4	8	74	59	133			
6	8	7	15	3	2	5	10	6	16	12	9	21	33	24	57	23	11	34	2	3	5	25	14	39	23	20	43	5	2	7	3	5	8	4	6	10	12	13	25	3	3	6	5	2	7	8	5	13	101	76	177			
7	9	5	14	3	4	7	10	14	24	14	11	25	36	34	70	38	39	77	3	1	4	41	40	81	28	23	51	4	9	13	4	...	4	3	5	8	11	14	25	...	1	1	6	8	14	6	9	15	122	120	242			
8	8	7	15	9	2	11	9	12	21	16	17	33	42	38	80	34	32	66	6	5	11	40	37	77	23	14	37	1	2	3	2	2	4	4	4	8	7	8	15	1	1	2	8	13	21	9	14	23	121	111	232			
9	14	8	22	2	2	4	10	9	19	12	12	24	38	31	69	23	28	51	2	2	4	25	30	55	11	9	20	2	3	5	3	3	6	3	4	7	8	10	18	2	2	4	10	12	22	12	14	26	94	94	188			
10	11	8	19	3	1	4	9	12	21	14	7	21	37	28	65	12	14	26	1	3	4	13	17	30	9	16	25	...	3	3	6	...	6	3	6	9	9	9	18	...	1	1	8	14	22	8	15	23	76	85	161			
11	8	11	19	3	3	6	12	10	22	11	12	23	34	36	70	13	17	30	4	3	7	17	20	37	7	5	12	...	1	1	1	1	2	7	9	16	8	11	19	1	...	1	9	17	26	10	17	27	76	89	165			
12	8	7	15	3	1	4	17	8	25	19	11	30	47	27	74	16	10	26	3	4	7	19	14	33	9	5	14	2	...	2	5	3	8	7	10	17	14	13	27	3	1	4	15	31	46	18	32	50	107	91	198			
13	7	11	18	2	4	6	10	10	20	22	16	38	41	41	82	10	15	25	3	3	6	13	18	31	9	6	15	2	3	5	5	5	10	7	3	10	14	11	25	2	...	2	13	30	43	15	30	45	92	106	198			
14	2	2	5	4	9	6	3	9	11	9	20	11	11	22	2	2	4	13	13	26	3	5	8	5	2	7	1	1	2	6	3	9	2	11	13	2	11	13	35	41	76			
Totals.	82	67	149	32	22	54	98	92	190	138	105	243	350	286	636	185	182	367	29	26	55	214	208	422	146	128	274	26	28	54	29	20	49	41	51	92	96	99	195	15	10	25	77	141	218	92	151	243	898	872	1770			

Table C.
AGES AT ONSET.

TUBERCULOSIS.												PARALYSIS.												RICKETS.												DEFORMITIES.												HEART DEFECTS.												GRAND TOTALS.		
GLANDULAR.				ABDOMINAL.			BONES.			JOINTS.			ALL FORMS.			INFANTILE.			OTHER FORMS.			ALL FORMS.			CONGENITAL.			TRAUMATIC.			OTHER FORMS.			ALL FORMS.			CONGENITAL.			ACQUIRED.			ALL FORMS.																			
Age.	M.	F.	Totals.	M.	F.	Totals.	M.	F.	Totals.	M.	F.	Totals.	M.	F.	Totals.	M.	F.	Totals.	M.	F.	Totals.	M.	F.	Totals.	M.	F.	Totals.	M.	F.	Totals.	M.	F.	Totals.	M.	F.	Totals.	M.	F.	Totals.	M.	F.	Totals.	M.	F.	Totals.	M.	F.	Totals.														
0-2	6	1	7	6	2	8	9	9	18	11	7	18	32	19	51	110	111	221	20	14	34	130	125	255	91	79	170	26	28	54	3	1	4	8	9	17	37	38	75	15	10	25	5	7	12	20	17	37	310	278	588											
2	6	1	7	2	1	3	10	9	19	16	12	28	34	23	57	35	26	61	3	2	5	38	28	66	17	13	30	2	2	4	1	4	5	3	6	9	2	4	6	2	4	6	94	74	168											
3	4	6	10	3	...	3	20	7	27	14	12	26	41	25	66	14	15	29	2	1	3	16	16	32	11	11	22	1	...	1	3	4	7	4	4	8	2	2	4	2	2	4	74	58	132											
4	7	7	14	2	1	3	11	18	29	14	13	27	34	39	73	8	13	21	2	...	2	10	13	23	8	9	17	2	4	6	4	1	5	6	5	11	3	5	8	3	5	8	61	71	132											
5	8	7	15	4	5	9	13	9	22	24	17	41	49	38	87	8	5	13	...	4	4	8	9	17	6	8	14	4	1	5	2	2	4	6	3	9	7	18	25	7	18	25	76	76	152											
6	18	8	26	1	...	1	5	14	19	10	12	22	34	34	68	4	1	5	...	1	1	4	2	6	1	...	1	7	2	9	3	9	12	10	11	21	8	12	20	8	12	20	57	59	116												
7	9	9	18	8	2	10	7	5	12	15	4	19	39	20	59	2	...	2	...	1	1	2	1	3	1	...	1	2	3	5	2	...	2	4	3	7	8	15	23	8	15	23	54	39	93												
8	7	9	16	1	2	3	10	5	15	6	6	12	24	22	46	2	3	5	2	...	2	4	3	7	2	1	3	2	3	5	2	3	5	4	6	10	6	10	16	6	10	16	40	42	82											
9	3	6	9	2	1	3	4	4	8	10	5	15	19	16	35	...	4	4	4	4	1	...	1	1	2	3	2	3	5	3	5	8	9	12	21	9	12	21	32	37	69												
10	4	6	10	1	4	5	4	3	7	7	4	11	16	17	33	1	...	1	...	1	1	1	1	2	1	...	1	4	4	8	5	4	9	9	14	23	9	14	23	31	36	67													
11	3	4	7	2	2	4	2	5	7	5	6	11	12	17	29	1	1	...	1	1	1	2	3	4	2	6	5	4	9	4	10	14	4	10	14	21	32	53													
12	4	1	5	...	1	1	1	...	1	1	3	4	6	5	11	2	...	2	3	1	4	5	1	6	7	11	18	7	11	18	18	17	35														
13	1	1	2	1	1	2	...	2	3	2	5	1	1	...	1	1	1	...	1	1	...	1	2	...	2	1	8	9	1	8	9	6	11	17													
14														
Totals	89	69	146	32	21	53	96	89	185	135	101	236	343	277	620	184	178	362	29	26	55	213	204	417	138	121	259	26	28	54	29	20	49	39	42	81	94	90	184	15	10	25	71	128	199	86	138	224	874	830	1704											

Table E.—EDUCATIONAL ARRANGEMENTS.

TUBERCULOSIS.

GLANDULAR								ABDOMINAL								BONE.								JOINT.								ALL FORMS.							
Age.	Attending P.E.S.	On Rolls, but not attending.	Attending P.D.S.	In Open-Air Residential Schools.	In other Institu- tions.	Not in Institu- tions, nor on Rolls of any School.	Totals.	Attending P.E.S.	On Rolls, but not Attending	Attending P.D.S.	In Open-Air Residential Schools.	In other Institu- tions.	Not in Institu- tions, nor on Rolls of any School.	Totals.	Attending P.E.S.	On Rolls, but not attending.	Attending P.D.S.	In Open-Air Residential Schools.	In other Institu- tions.	Not in Institu- tions, nor on Rolls of any School.	Totals.	Attending P.E.S.	On Rolls, but not attending.	Attending P.D.S.	In Open-Air Residential Schools.	In other Institu- tions.	Not in Institu- tions, nor on Rolls of any Schools.	Totals.	Attending P.E.S.	On Rolls, but not attending.	Attending P.D.S.	In Open-Air Residential Schools.	In other Institu- tions.	Not in Institu- tions, nor on Rolls of any School.	Totals.				
5	...	7	...	1	...	4	12	...	2	...	1	1	1	5	1	1	...	7	...	4	13	2	3	...	7	3	4	19	3	13	...	16	4	13	49				
6	...	12	...	1	2	...	15	...	3	...	...	...	2	5	2	1	...	8	1	4	16	2	3	...	6	2	8	21	4	19	...	15	5	14	57	
7	...	6	...	3	2	3	14	...	4	...	1	2	...	7	2	6	3	8	2	3	24	2	10	3	3	3	4	25	4	26	6	15	9	10	70				
8	...	11	...	3	1	...	15	...	8	...	1	1	1	11	1	7	2	4	3	4	21	5	7	4	6	5	6	33	6	33	6	14	10	11	80				
9	...	17	...	5	...	...	22	...	2	1	...	1	...	4	2	4	5	4	2	2	19	4	7	3	8	2	...	24	6	30	9	17	5	2	69		
10	...	10	...	5	3	1	19	...	1	1	...	2	...	4	1	8	4	7	1	...	21	2	5	7	6	...	1	21	3	24	12	18	6	2	65				
11	...	12	...	2	4	1	19	...	2	...	1	1	2	6	2	11	6	1	1	1	22	13	3	2	1	3	1	23	15	28	8	5	9	5	70				
12	...	11	...	...	4	...	15	...	2	1	1	...	...	4	1	6	9	6	2	1	25	9	6	7	4	4	...	30	10	25	17	11	10	1	74
13	...	14	1	1	2	...	18	...	5	...	1	...	...	6	1	3	12	3	1	...	20	8	13	9	5	3	...	38	9	35	22	10	6	...	82		
14	1	...	1	2	1	...	3	3	2	...	9	...	...	5	3	1	...	9	1	...	8	7	3	1	20				
Totals	...	100	1	21	18	9	149	...	29	3	7	8	7	54	14	47	44	51	15	19	190	47	57	40	49	26	24	243	61	233	88	128	67	59	636				

Table F.—EDUCATIONAL ARRANGEMENTS.

PARALYSIS.

INFANTILE.								OTHER FORMS.								ALL FORMS.							
Age	Attending P.E.S.	On Rolls, but not attending.	Attending P.D.S.	In Open-Air Residential Schools.	In other Institutions.	Not in Institutions, nor on Rolls of any School.	Totals.	Attending P.E.S.	On Rolls, but not attending.	Attending P.D.S.	In Open-Air Residential Schools.	In other Institutions.	Not in Institutions, nor on Rolls of any School.	Totals.	Attending P.E.S.	On Rolls, but not attending.	Attending P.D.S.	In Open-Air Residential Schools.	In other Institutions.	Not in Institutions, nor on Rolls of any School.	Totals.		
5	2	1	...	...	...	7	10	...	...	...	...	...	3	3	2	1	...	...	...	10	13
6	12	2	2	...	1	17	34	2	...	...	...	...	3	5	14	2	2	...	1	20	39
7	35	2	25	...	1	14	77	...	...	1	...	...	3	4	35	2	26	...	1	17	81
8	23	2	33	...	3	5	66	2	2	3	...	...	4	11	25	4	36	...	3	9	77
9	21	2	23	...	3	2	51	1	...	2	...	1	...	4	22	2	25	...	4	2	55		
10	9	1	14	...	1	1	26	1	1	...	...	1	1	4	10	2	14	...	2	2	30
11	13	1	15	...	1	...	30	1	1	1	...	1	3	7	14	2	16	...	2	3	37		
12	6	...	17	...	2	1	26	1	...	4	...	...	2	7	7	...	21	...	2	3	33
13	10	2	12	...	...	1	25	...	1	3	...	1	1	6	10	3	15	...	1	2	31
14	6	1	14	...	...	1	22	...	...	2	...	1	1	4	6	1	16	...	1	2	26
Totals	137	14	155	...	12	49	367	8	5	16	...	5	21	55	145	19	171	...	17	70	422		

Table G.—EDUCATIONAL ARRANGEMENTS.

RICKETS.

Age.	Attending P.E.S.	On Rolls, but not attending.	Attending P.D.S.	In Open-Air Residential Schools.	In other Institu- tions.	Not in Institu- tions, nor on Rolls of any School.	Totals.
5	12	6	1	...	4	26	49
6	14	3	3	1	4	18	43
7	18	2	9	1	7	14	51
8	15	...	18	...	...	4	37
9	9	1	7	...	...	3	20
10	5	...	13	...	5	2	25
11	6	...	6	...	...	...	12
12	6	...	5	...	1	2	14
13	6	...	8	...	1	...	15
14	2	...	6	...	...	...	8
Total	93	12	76	2	22	69	274

Table H.—EDUCATIONAL ARRANGEMENTS.

HEART DEFECTS.

CONGENITAL.								ACQUIRED.								ALL FORMS.							
Age.	Attending P.E.S.	On Rolls, but not attending.	Attending P.D.S.	In Open-Air Residential Schools.	In other Institu- tions.	Not in Institu- tions, nor on Rolls of any School.	Totals.	Attending P.E.S.	On Rolls, but not attending.	Attending P.D.S.	In Open-Air Residential Schools.	In other Institu- tions.	Not in Institu- tions, nor on Rolls of any School.	Totals.	Attending P.E.S.	On Rolls, but not attending.	Attending P.D.S.	In Open-Air Residential Schools.	In other Institu- tions.	Not in Institu- tions, nor on Rolls of any School.	Totals.		
5	...	2	...	...	...	2	4	...	2	...	...	1	1	4	...	4	...	...	1	3	8
6	6	6	...	3	...	1	2	1	7	...	3	...	1	2	7	13		
7	1	1	...	7	2	...	1	4	14	...	7	2	...	1	5	15		
8	...	1	...	...	...	1	2	...	11	...	4	5	1	21	...	12	...	4	5	2	23
9	3	...	...	1	4	...	9	3	4	6	...	22	...	9	6	4	6	1	26		
10	1	...	...	...	...	...	1	...	14	1	3	4	...	22	1	14	1	3	4	...	23
11	...	1	...	...	...	...	1	...	15	5	3	3	...	26	...	16	5	3	3	...	27
12	2	...	...	2	4	...	29	7	3	5	2	46	...	29	9	3	5	4	50		
13	...	1	1	...	...	...	2	...	31	3	1	5	3	43	...	32	4	1	5	3	45
14	12	...	...	1	...	13	...	12	...	...	1	...	13		
Total	1	5	6	...	...	13	25	...	133	21	19	33	12	218	1	138	27	19	33	25	245

From Table D it is important to notice that approximately 40% of the cases of Tuberculosis, 90% of the Paralyses, 92% of the cases of Rickets, 56% of the Deformities, and 25% of the Heart cases, or 60% of all the cases investigated, showed that the defects had existed before the age of 5, that is to say, before school life. This has a distinct bearing on the question of treatment, as will be mentioned later.

Table D.

Ages at Onset in Percentages.

Age at Onset.	Tuber- culosis.	Paralysis.	Rickets.	Deformi- ties.	Heart.	Totals.
0—2	8.2	61.1	65.6	40.8	16.5	34.5
2	9.2	15.8	11.6	4.9	2.7	9.9
3	10.6	7.7	8.5	4.3	1.8	7.7
4	11.8	5.5	6.6	6.0	3.6	7.7
5	14.0	4.1	5.4	4.9	11.2	8.9
6	10.9	1.4	0.4	11.4	8.9	6.8
7	9.5	0.7	0.4	3.8	10.3	5.5
8	7.4	1.7	1.1	5.4	7.1	4.8
9	5.6	1.0	0.4	4.3	9.4	4.1
10	5.3	0.5	—	4.9	10.3	3.9
11	4.7	0.2	—	4.9	6.2	3.1
12	1.8	—	—	3.2	8.0	2.0
13	0.8	0.2	—	1.1	4.0	1.0

In only 79 cases, or 4.6%, was the defect reported to have been congenital. Owing in many cases to the long period elapsing between the onset and the enquiry, it was found to be very difficult to obtain with any degree of accuracy the age at onset, and it would be well not to attach undue importance to the figures.

A.—Tuberculosis.

Taking Non-Pulmonary Tuberculosis as a whole it appears that this disease is the most frequent cause of crippling in children, and accounted for over one-third of all the cases investigated.

The ages were fairly evenly distributed, with maxima at 8 and 13, whilst the most frequent age at onset was 5 years. Of the cases 55% were boys, this increased frequency in the case of the boys being noted in each of the sub-headings of this disease.

- (1) *Tubercular Glands (Cervical)*. The cases in the returns practically included only those children who were unfit to attend a Public Elementary School. The ages of the cases were fairly evenly distributed, but the largest number were noted at the age of 9, whilst the age of 6 was the most frequent age of onset.
- (2) *Abdominal Tuberculosis (i.e., Tub. Peritonitis or Tabes Mesenterica)*. The most frequent age of the cases was 8 years, with a maximum onset of 7 years.
- (3) *Tuberculosis of Bones*. The cases were fairly evenly distributed between the ages of 7 and 13, with a maximum at the age of 7 in the case of girls, and 12 in the case of boys. The most frequent ages at which the onset occurred were 3, 4, and 5.
- (4) *Tuberculosis of Joints*. This form is the most frequent cause of crippling due to Tuberculosis, and occurs somewhat more frequently in boys than in girls, the largest number of cases in both sexes being noted at the ages of 8 and 13, with the maximum onset at 5 years. Either the hip joint or the knee joint was effected in almost every instance.

B.—Paralysis.

Paralysis accounted for just under one-quarter of the cases, 61% developing before the age of 2, and 87% before the age of 5. The incidence of the disease was the same for both sexes. The

following forms of paralysis were not included in the enquiry:—Facial Paralysis, Post-Diphtheritic Paralysis (unless permanent), Paralysis associated with Idiocy or advanced stages of Epilepsy.

- (1) *Infantile Paralysis (Poliomyelitis)*. This accounted for 87% of all the cases, 61% occurring before the age of 2, and approximately 92% before the age of 5, whilst the largest number were reported at the ages of 7 and 8. In view of the fact that 92% of the cases develop before the age of 5, it is difficult to account for the small number recorded at the ages of 5 and 6.
- (2) *Other Forms of Paralysis* accounted for only 55 cases (13%), and 80% of these developed before school life. Included under this heading were certain paralysees caused by injury at birth, spastic paralysis, and certain muscular dystrophies.

C.—Rickets.

Rickets accounted for 274 cases (or 15%), the onset in 77% being reported as occurring during the first three years of life. The ricketty deformities most frequently reported were knock-knee (54%), and bow-legs (21%).

D.—Other Deformities.

Eleven per cent. of the cases were classified under this heading, the proportion being practically the same for both sexes. Rather more than half the cases developed before school life, and 40% before the age of 2.

- (1) *Congenital Deformities* accounted for 54 cases (or 28%), and the largest number were noted at the age of 7. The majority were cases of clubfoot and dislocation of the hip.
- (2) *Traumatic Deformities* occurred in 49 cases (25%), and were slightly more frequent amongst boys. In 15 cases the deformity was caused by an old fracture, by amputation in 9, and by old dislocation in 3 cases. The most frequent age at which the injury occurred was 6 years.

- (3) *Deformities due to other causes* were reported in 92 cases (47%), and were more frequent amongst girls, the largest number of cases developing in infancy and at the age of 6. The majority were cases of spinal curvature requiring treatment.

E.—Heart Disease.

This disease was responsible for 243 cases, or 13.7% of all the cases enquired into; 62% were girls. The enquiry included only those cases which were considered to be sufficiently severe to require either exclusion from school or attendance at schools for physically defective children. Consequently, only one of the cases was attending a Public Elementary School.

- (1) *Congenital Heart Disease* was reported in 25 cases (10%).
 (2) *Acquired Heart Disease* was reported in 218 cases (90%), only 15% of these cases developing before school life. Approximately two-thirds of these cases were girls.

2.—Methods of "Following-up" to secure Treatment.

(a) The majority of cases pass through the hands of the Child Welfare Association (formerly known as the Invalid Children's Association), a very live organisation in Liverpool. A representative of this Association attends the orthopædic Out-Patient clinics at the Royal Children's Hospital and the Royal Southern Hospital, and takes notes of the cases for which surgical appliances or a residence at the open-air residential school at Leasowe are required, and the Association in the former cases assists parents, where necessary, to obtain the appliances, and by means of a large staff of visitors keeps in regular touch with the cases subsequently. Children are dealt with by the Association up to the age of 16.

(b) The Education Committee, through the Industrial and Special Schools Sub-Committee, deal with some 500 children at four P.D. Schools and one open-air residential school for children whose names are on the rolls of the P.D. Schools.

Table I.—EDUCATIONAL ARRANGEMENTS.

DEFORMITIES.

CONGENITAL.								TRAUMATIC.							OTHER FORMS.							ALL FORMS.						
Age.	Attending P.E.S.	On Rolls, but not attending.	Attending P.D.S.	In Open-Air Residential Schools.	In other Institu- tions.	Not in Institu- tions, nor on Rolls of any School.	Totals.	Attending P.E.S.	On Rolls, but not attending.	Attending P.D.S.	In Open-Air Residential Schools.	In other Institu- tions.	Not in Institu- tions, nor on Rolls of any School.	Totals.	Attending P.E.S.	On Rolls, but not attending.	Attending P.D.S.	In Open-Air Residential Schools.	In other Institu- tions.	Not in Institu- tions, nor on Rolls of any School.	Totals.	Attending P.E.S.	On Rolls, but not attending.	Attending P.D.S.	In Open-Air Residential Schools.	In other Institu- tions.	Not in Institu- tions, nor on Rolls of any School.	Totals.
5	2	1	...	...	1	4	8	...	...	...	1	...	...	1	3	...	...	1	...	1	5	5	1	...	2	1	5	14
6	1	...	...	...	1	5	7	2	3	1	...	1	1	8	5	...	...	1	1	3	10	8	3	1	1	3	9	25
7	6	1	4	...	...	2	13	2	2	...	...	...	...	4	7	...	...	...	1	...	8	15	3	4	...	1	2	25
8	1	...	2	...	...	...	3	2	...	1	...	...	1	4	5	2	...	...	1	...	8	8	2	3	...	1	1	15
9	4	...	1	...	...	...	5	2	3	1	...	...	...	6	3	1	1	...	2	...	7	9	4	3	...	2	...	18
10	...	...	2	...	1	...	3	1	1	4	...	...	...	6	7	...	1	...	...	1	9	8	1	7	...	1	1	18
11	1	...	...	...	...	...	1	1	1	...	...	...	...	2	7	4	1	...	2	2	16	9	5	1	...	2	2	19
12	1	...	1	...	...	...	2	1	2	4	...	...	1	8	8	2	4	...	3	...	17	10	4	9	...	3	1	27
13	...	...	1	...	4	...	5	4	4	1	...	...	1	10	3	1	3	...	2	1	10	7	5	5	...	6	2	25
14	1	...	3	...	2	1	7	...	...	...	...	...	...	...	1	...	1	...	...	...	2	2	...	4	...	2	1	9
Totals	17	2	14	...	9	12	54	15	16	12	1	1	4	49	49	10	11	2	12	8	92	81	28	37	3	22	24	195

A Nurse has been appointed by the Committee to follow up the cases on the rolls of the P.D. Schools or awaiting admission to these Schools, with a view to securing regular treatment and the early repair of apparatus. Apparatus is supplied for these children, as required, through the Child Welfare Association.

By means of the Staff of the Medical Inspection Sub-Committee the Education Committee keeps in touch with cripples attending Public Elementary Schools, and also absentees or non-attenders who are not in any institution, i.e., approximately 60% of the cases. Children requiring surgical advice or appliances are referred to the Child Welfare Association for assistance.

Health Visitors and School Attendance Officers report cases, and these are examined by the School Medical Officers and advised as may be necessary.

In cases of neglect the local Society for the Prevention of Cruelty to Children brings pressure to bear in order to secure treatment.

3.—Methods of Treatment Available.

The following organisations make special arrangements for medical or surgical treatment:—

(a) Child Welfare Association:

Orthopædic Clinic at Headquarters.

Leasowe Hospital for Surgical Tuberculosis (Bone and Joint cases chiefly).

Residential Open-air School.

(b) Royal Children's Hospital:

Out-Patient Clinic.

In-Patient treatment.

Open-air Residential School at Heswall Country Hospital for Children.

(c) Royal Southern Hospital:

Orthopædic Clinic.

In-Patient treatment.

(d) Other General Hospitals.

(e) Various Poor Law Institutions, especially Olive Mount Cottage Homes and Alder Hey Hospital.

(f) Certain Residential Institutions, e.g., West Kirby Convalescent Home, Greenbank Home of Rest, Nazareth House for Cripples, etc., also receive crippled children who may be sent there if their condition or home circumstances require it.

At most of these Institutions massage, remedial exercises, and electrical treatment are to some extent available; the Education Committee, except by supplying a part-time masseuse at one of the P. D. Schools, have not up to the end of the year made any special provisions for remedial exercises, massage, etc., for school children requiring such treatment, apart from such massage as can be undertaken by the Nurses attached to the other P.D. Schools.

With regard to the actual treatment of the cases reported upon, there were 1,324 cases in which it might be expected on *prima facie* grounds that surgical apparatus would be required. Of these there was incomplete information regarding 144, and 439 cases did not need apparatus, leaving 741 cases which did require apparatus, and in 585 of these children (79%) this was being worn. In the remaining 21% apparatus had been originally obtained in most of the cases, but had been worn out or broken, and had not been repaired. The largest proportion of neglect to wear apparatus was reported in the case of Rickets.

So far as the cases of Paralysis, Rickets, and other Deformities were concerned, it was frequently noted that the treatment, owing, no doubt, to its necessarily protracted nature, was irregular, and that the results were to an extent unsatisfactory.

Increased residential accommodation for all the groups, except, perhaps, for the heart cases, are greatly needed, as well as improved facilities for special exercises, massage, etc. Table E shows that even in the case of Tuberculosis nearly half the children are absent from School and not in any institution.

4.—Causation.

In the case of acquired Heart Disease there was a history of a previous attack of rheumatism or chorea in 70%, and in 14% the heart trouble was secondary to an acute infectious disease, usually scarlet fever.

5.—Educational Arrangements.

Tables E to I show for each age and defect the condition of the cases with regard to education. Open-air Residential Schools available for Liverpool children include Leasowe Sanatorium (200 beds), Heswall Country Hospital for Children (120 beds), West Kirby Convalescent Home (six beds for children sent by the Liverpool Education Committee), and Bowring House, Roby, provided by the Liverpool Education Committee (50 beds).

In some of the Institutions included in Column 6 education is provided, e.g., Olive Mount Cottage Homes, Fazakerley Cottage Homes, Greenbank Home of Rest, but it was not possible to obtain information as to the exact cases in these institutions which were receiving instruction. Roughly, some 50% of the Crippled Children considered in the Enquiry were receiving education.

Table J gives the information in a condensed form and shows that there are practically as many of the Cripples in the Elementary Schools as in the Schools for Physically Defectives, though, of course, the former cases suffer from a milder degree of crippling. Many of the cases in the last column were permanently unfit for any School.

Table J.
EDUCATIONAL ARRANGEMENTS.

ALL DEFECTS.

Defect.	Attending P.E.S.	On Rolls, but not attending.	Attending P.D.S.	In Open-air Residen- tial Schools.	In other Institu- tions.	Not in Institu- tions, nor on Rolls of any School.	Totals.
Tuberculosis ...	61 (9.6%)	233 (36.7%)	88 (13.8%)	128 (20.1%)	67 (10.5%)	59 (9.3%)	636
Paralysis ...	145 (34.4%)	19 (4.5%)	171 (40.5%)	—	17 (4.0%)	70 (16.6%)	422
Rickets ...	93 (34.0%)	12 (4.4%)	76 (27.7%)	2 (0.7%)	22 (8.0%)	69 (25.2%)	274
Deformity...	81 (41.5%)	28 (14.3%)	37 (19.0%)	4 (2.1%)	22 (11.3%)	23 (11.8%)	195
Heart ...	1 (0.4%)	138 (56.8%)	27 (11.1%)	19 (7.8%)	33 (13.6%)	25 (10.3%)	243
Totals ...	381 (21.5%)	430 (24.3%)	399 (22.6%)	153 (8.6%)	161 (9.1%)	246 (13.9%)	1,770

6.—Suggestions for Future Developements.

(a) It is desirable that better arrangements be made for the early detection of the cases of crippling, seeing that 60% of all the cases occur before school age.

(b) Closer co-operation with regard to the transference of information *re* the cases is necessary between the Education Committee and

(1) The Child Welfare Association.

(2) The Infant and Child Welfare Department of the Health Committee.

(3) The General and Special Hospitals.

(4) Various Institutions, whether Poor Law or others, at which children are treated.

- (c) The provision of special clinics where massage, remedial exercises, etc., can be undertaken should be arranged by or with the co-operation of the Local Authority (i.e., Education or Health Committee or both), so that continuity of treatment may be secured.
- (d) Increased accommodation at Open-air Schools, day and residential, with provision for children under school age is needed.

Leasowe Hospital, for instance, is practically confined to the treatment of surgical Tuberculosis, and owing to limitation in the number of beds patients often have to wait a considerable time before admission.

Similar Institutions where teaching can be carried out are also required for cases with severe deformities which render attendance at a school for physically defective children impracticable.

- (e) Provision of apparatus and the carrying out of repairs to apparatus at a reasonable cost.
- (f) It is essential that this enquiry should be kept up to date, and arrangements have been made for this to be done.

MISCELLANEOUS WORK.

Supervision of Absentees.

As mentioned in the commencement of the Report, the average attendance at the schools was 87·2 per cent. The large majority of those absent were away on medical grounds, as a recent enquiry into the matter has shewn. Of those whose absence is due to ill-health many are away from school for months; special efforts have been made to keep in touch with such cases and to see that they are receiving regular and satisfactory treatment, and that they return to school as soon as they are fit.

By a resolution of the Committee children who have been suffering from phthisis, ringworm of the scalp, and scabies are not allowed to be re-admitted to school without the certificate of a School Medical Officer.

The following table shews the results of the examinations of absentees which are carried out at 13 Inspection Clinics.

Table III.

DEFECT.								Children re-admitted to school.	*No. of examina- tions of children not re-admitted to school.	Total Examina- tions.
Ringworm and supposed Ringworm of scalp	...	...	...	...	...	...	...	505	927	1,432
Phthisis and supposed Phthisis	...	...	...	...	...	...	...	119	291	410
Tuberculosis (other forms)	...	...	...	...	...	...	...	174	264	438
Other Chest conditions...	...	...	...	...	...	...	...	146	223	369
Scabies	...	...	...	...	...	...	...	87	246	333
Impetigo...	...	...	...	...	...	...	...	21	28	49
Other Skin conditions	...	...	...	...	...	...	...	86	70	156
Eye Diseases	...	...	...	...	...	...	...	71	192	263
Anæmia and Debility	...	...	...	...	...	...	...	188	352	540
Heart Defects	...	...	...	...	...	...	...	60	156	216
Nervous Diseases	...	...	...	...	...	...	...	74	181	255
Tonsils and Adenoids	...	...	...	...	...	...	...	20	20	40
Ear Diseases	...	...	...	...	...	...	...	17	69	86
Injuries and Deformities	...	...	...	...	...	...	...	23	52	75
Rheumatism	...	...	...	...	...	...	...	22	70	92
Miscellaneous	...	...	...	...	...	...	...	110	220	330
No defect found	...	...	...	...	...	...	...	48	—	48
TOTALS FOR 1920	...	...	...	...	...	...	...	1,771	3,361	5,132
TOTALS FOR 1919	...	...	...	...	...	...	...	1,404	3,075	4,479

* These figures indicate several examinations of certain of the children, approximately two to each.

Girls' Camp.

During the summer, between 25 and 30 Liverpool school girls, nominated by the Head Teachers, were, with the sanction of the Education Committee, sent weekly to a Girls' Camp provided at Wallasey by private generosity.

These girls have been for the past two years examined and passed by one of the School Medical Officers before going to the Camp. Some 250 were examined in 1920, a small number having to be refused on medical grounds.

E. W. HOPE,

Medical Officer to the Education Authority.

APPENDIX A.

ELEMENTARY SCHOOLS.

Table I.

Number of Children Inspected, 1st January 1920 to 31st December, 1920.

A.—Routine Medical Inspection.

Age.					ENTRANTS.					
					3.	4.	5.	6.	Other Ages	Total
Boys	—	437	5,291	3,409	725	9,862
Girls	—	388	5,037	3,458	780	9,663
Totals ...					—	825	10,328	6,867	1,505	19,525

Age.				INTER- MEDIATE GROUP.	LEAVERS.			Other Ages.	Total.	Grand Total.
					12.	13.	14.			
Boys	...	...	...	3,243	5,478	2,322	92	230	11,365	21,227
Girls	...	...	...	3,169	5,458	2,209	57	251	11,114	20,807
Totals ...				6,412	10,936	4,531	149	481	22,509	42,034

B. Special Inspections.

								Special Cases.	Re-examinations.
Boys	...	...	...	...	...	...	...	5,593	23,387
Girls	...	...	...	...	...	...	...	5,172	26,313
Totals								10,765	49,700

C.—Total number of Individual Children Inspected by the Medical Officer, whether as Routine or Special Cases (No child being counted more than once in one year).

No. of Individual Children Inspected.

51,505 †

75,304 *

Note : † Routine and new Special Cases only.

* Includes also all children re-examined.

Table II.

Return of Defects Found in the Course of Medical
Inspection in 1920.

DEFECT OR DISEASE.	ROUTINE INSPECTIONS.		SPECIALS.	
	Number referred for Treatment.	Number requiring to be kept under observation, but not referred for Treatment.	Number referred for Treatment.	Number requiring to be kept under observation, but not referred for Treatment.
(1)	(2)	(3)	(4)	(5)
MALNUTRITION	102	460	31	81
UNCLEANLINESS—				
Head	5,666	2	134	—
Body	3,291	7	117	—
SKIN—				
Ringworm—				
Head	11	17	225	224
Body	14	12	12	11
Scabies	45	18	78	113
Impetigo	63	119	50	68
Other Diseases (Non-Tubercular) ...	80	208	63	102
EYE—				
Blepharitis	155	305	49	86
Conjunctivitis	57	125	55	42
Keratitis	1	1	3	6
Corneal Ulcer	11	19	7	23
Corneal Opacities	16	22	1	6
Defective Vision	2,417	2,276	3,339	865
Squint	636	419	623	88
Other Conditions	25	110	17	23
EAR—				
Defective Hearing	42	199	27	84
Otitis Media	170	335	46	58
Other Ear Diseases	226	364	62	36
NOSE AND THROAT—				
Enlarged Tonsils	579	2,311	151	113
Adenoids	361	127	301	22
Enlarged Tonsils and Adenoids ...	376	224	199	19
Mouth Breathing	1,104	793	184	98
Other Conditions	26	147	8	40

Table II.—Continued.

DEFECT OR DISEASE.	ROUTINE INSPECTIONS.		SPECIALS.	
	Number referred for Treatment.	Number requiring to be kept under observation, but not referred for Treatment.	Number referred for Treatment.	Number requiring to be kept under observation, but not referred for Treatment.
(1)	(2)	(3)	(4)	(5)
ENLARGED CERVICAL GLANDS (Non-Tubercular)	40	1,741	22	147
DEFECTIVE SPEECH	12	271	11	136
†TEETH (Dental Diseases)	3,192	3,913	156	135
HEART AND CIRCULATION—				
Heart Disease—				
Organic	44	57	51	19
Functional	14	489	13	60
Anaemia	175	750	131	227
LUNGS—				
Bronchitis	38	253	29	59
Other Non-Tubercular Diseases ...	70	1,304	37	153
TUBERCULOSIS—				
Pulmonary—				
Definite	—	7	54	16
Suspected	3	27	22	21
Non-Pulmonary—				
Glands	6	75	34	35
Spine	—	6	4	12
Hip	—	4	16	3
Other Bones and Joints	3	8	8	15
Skin	1	5	6	8
Other Forms	1	13	8	10
NERVOUS SYSTEM—				
Epilepsy	1	3	8	16
Chorea... ..	2	17	20	53
Other Conditions	3	81	19	52
DEFORMITIES—				
Rickets	35	290	22	33
Spinal Curvature	17	26	2	4
Other Forms	15	156	4	21
OTHER DEFECTS AND DISEASES ...	278	1,249	196	487
Number of Individual Children having Defects which required Treatment or to be kept under Observation				
				27,519
(Not including cases of Uneleanliness).				

† Cases examined by the School Medical Officers

Table III.

Numerical Return of all Exceptional Children in the Area
in 1920.

			Boys.	Girls.	Total.
BLIND (Including partially blind) within the meaning of the Elementary Education (Blind and Deaf Children) Act, 1893.		Attending Public Elementary Schools	104	127	231
		Attending Certified Schools for the Blind	30	21	51
		Attending Defective Vision Class ...	21	29	50
		Not at School	9	6	15
DEAF AND DUMB (Including partially deaf) within the meaning of the Elementary Education (Blind and Deaf Children) Act, 1893.		Attending Public Elementary Schools	—	—	—
		Attending Certified Schools for the Deaf	58	54	112
		Not at School	11	14	25
MENTALLY DEFICIENT.	Feeble- minded.	Attending Public Elementary Schools	109	95	204
		Attending Certified Schools for Mentally Defective Children ...	291	207	498
		Notified to the Local Control Authority by Local Education Authority during the year... ..	5	3	8
		Not at School	35	32	67
	Imbeciles.	At School	—	—	—
		Not at School	53	35	88
		Notified to Lanes. Asylums Board ...	7	14	21
	Idiots.	... ..	17	14	31
		Notified to Lanes. Asylums Board ...	4	1	5
EPILEPTICS.		Attending Public Elementary Schools	2	3	5
		Attending Certified Schools for Epileptics	1	—	1
		In Institutions other than Certified Schools	9	3	12
		Not at School	22	37	59
PHYSICALLY DEFECTIVE.	Pulmonary Tuberculosis.	Attending Public Elementary Schools	—	—	—
		Attending Certified Schools for Physically Defective Children ...	—	—	—
		In Institutions other than Certified Schools	44	50	94
		Not at School	166	178	344
	Crippling due to Tuberculosis.	Attending Public Elementary Schools	56	25	81
		Attending Certified Schools for Physically Defective Children ...	59	49	108
		In Institutions other than Certified Schools	23	26	49
		Not at School	64	63	127
	Crippling due to causes other than Tuberculosis, i.e., Paralysis, Rickets, Traumatism.	Attending Public Elementary Schools	170	111	281
		Attending Certified Schools for Physically Defective Children ...	154	109	263
		In Institutions other than Certified Schools	28	15	43
		Not at School	91	106	197
Other Physi- cal Defectives e.g., delicate and other chil- dren suitable for admission to Open Air Schools; chil- dren suffering from severe heart disease.	Attending Public Elementary Schools	45	54	99	
	Attending Open Air Schools	15	3	18	
	Attending Certified Schools for Physically Defective Children, other than Open Air Schools ...	66	67	133	
	Not at School	127	161	291	

Table IV. - Treatment of Defects of Children during 1920.

A.—Treatment of Minor Ailments.

DISEASE OR DEFECT	NUMBER OF CHILDREN.										
	Referred for Treatment			Treated.			Improved without special treatment	No. of defects not treated and still unimproved.	Total reported upon.	No. of defects for which no report is available.	Percentage treated of cases reported upon.
	From previous year.	1920 cases.	Total	Under Local Education Authority's Scheme.	Other-wise.	Total					
SKIN :—											
Ringworm (head) ...	180	477	657	108	302	410	—	—	410	247	100·0
Ringworm (body) ...	5	163	168	140	9	149	—	—	149	19	100·0
Scabies ...	137	182	319	—	231	231	1	8	240	79	96·3
Impetigo ...	69	2,245	2,314	2,140	93	2,233	2	4	2,239	75	99·7
Minor Injuries ...	—	527	527	522	1	523	—	—	523	4	100·0
Other Skin conditions	199	2,878	3,077	2,873	100	2,973	7	12	2,992	85	99·4
EAR DISEASE ...	167	1,602	1,769	788	272	1,060	65	167	1,292	477	82·0
EYE DISEASE ... (External and others)	191	1,754	1,942	1,387	211	1,598	37	43	1,678	264	95·2
MISCELLANEOUS... ..	13	225	238	202	15	217	—	1	218	20	99·5
TOTALS	961	10,050	11,011	8,160	1,234	9,394	112	235	9,741	1,270	96·4

B.—Treatment of Visual Defects.

	NUMBER OF CHILDREN.																Percentage of cases reported upon.
	Referred for Refraction.			Submitted to Refraction.				For whom glasses were prescribed.	For whom glasses were provided.	Recom- mended for treatment other than by glasses.	Received other forms of treatment.	For whom no treat- ment was considered necessary.	Improved without special treatment.	Not treated, and not improved.	Total reported upon.	No report available.	
	From previous year.	1920 cases.	Total.	Under Local Education Authority's Scheme.	By private Prac- titioner or Hospital.	Other- wise.	Total.										
New Cases	1,469	5,321	6,790	2,753	126	55	2,934	2,837	2,835	13	4	*89	140	689	3,763	3,027	78·0
Re-examination Cases	—	1,706	1,706	1,576	46	34	1,656	1,390	1,372	14	5	†257	3	—	1,659	47	99·8
TOTALS	1,469	7,027	8,496	4,329	172	89	4,590	4,227	4,207	27	9	346	143	689	5,422	3,074	84·6

*Includes 7 cases to "Continue with glasses previously obtained."

†Includes 211 cases to "Continue with glasses previously obtained."

C.—Treatment of Defects of Nose and Throat.

NUMBER OF CHILDREN.										
Referred for Treatment.			Received Operative Treatment.			Improved without special treatment.	Not treated.	Total Reported upon.	No. of defects for which no report is available.	Percentage treated of cases reported upon.
From previous year.	1920 cases.	Total.	Under Local Education Authority's Scheme.	By private Practitioner or Hospital.	Total.					
Enlarged tonsils and adenoids	826	2,935	3,761	954	132	1,086	605	599	2,373	49.3
Mouth breathing ...	536	1,960	2,496	—	—	—	485	448	1,352	31.0
TOTALS ...	1,362	4,895	6,257	954	132	1,086	1,090	1,047	3,725	42.6

2.—Particulars of the Time given and of Operations undertaken.

CLINIC.	No. of Half-days devoted to Inspection	No. of Half-days devoted to Treatment	Total No. of attendances made by the Children at the Clinic.	No. of Permanent Teeth.		No. of Temporary Teeth.		Total No. of Fillings.	No. of Administrations of General Anæsthetics included in (4) and (6)	No. of Other Operations	
				Extracted.	Filled.	Extracted.	Filled.			Per- manent Teeth.	Tem- porary Teeth.
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)
Addison Street ...	229	129	1,151	113	478	1,864	165	643	546	3	3
Dental Hospital...		308	2,633	146	1,012	4,316	338	1,350	1,307	10	—
Harrington ...		294	2,328	130	842	3,553	378	1,220	1,039	118	79
Timpron Street ...		69	1,012	65	362	1,798	179	541	548	17	5
TOTAL ...	229	800	7,124	454	2,694	11,531	1,060	3,754	3,440	148	87

F. — Treatment of all other Defects.

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DISEASE OR DEFECT.	NUMBER OF CHILDREN.									
	Referred for Treatment		No. of defects for which no report is available	Number reported upon.	No. of defects treated.	Results of Treatment.		Improved without special treatment.	No. of defects not treated and still unimproved.	Percentage treated of cases reported upon.
	From previous year.	1920 cases.				Remedied.	Improved.			
MALNUTRITION	74	199	273	134	139	68	57	11	45	48.9
SERIOUS EYE	...	...	...	...	...	...	...	...	26	...
CONDITIONS	52	65	117	48	69	56	54	2	5	81.2
ENL. CERV. GLANDS	248	23	271	18	253	73	72	1	171	28.8
(Non-Tuberculous)	...	...	...	...	...	...	...	...	...	...
SPEECH	55	16	71	14	57	20	20	—	36	35.1
HEARING	39	63	102	45	57	20	19	1	27	35.1
*TEETH	4,127	6,385	10,512	3,326	7,186	3,448	2,435	1,013	1,127	48.0
HEART & CIRCULATION	...	...	...	...	...	...	...	...	...	...
Organic	5	12	17	3	14	12	11	1	1	85.7
Functional	33	18	51	13	38	30	28	2	6	78.9
Anaemia	315	349	664	210	454	187	151	36	207	41.2
LUNGS—	...	...	...	...	...	...	...	...	...	...
Non-Tuberculous	341	146	487	87	400	312	287	25	72	78.0
TUBERCULOSIS—	...	...	...	...	...	...	...	...	...	...
Pulmonary, definite	8	9	17	7	10	6	4	2	—	60.0
" suspected	9	8	17	8	9	8	8	—	1	88.9
Glands	25	27	52	18	34	8	8	—	25	23.5
Spine	1	—	1	—	1	1	—	1	—	100.0
Hip	—	1	1	1	—	—	—	—	—	—
Other bones & joints	—	3	3	1	2	1	—	1	—	50.0
Skin	—	6	6	3	3	1	—	1	—	33.3
Other forms	—	4	4	2	2	1	1	—	1	50.0
NERVOUS SYSTEM—	...	...	...	...	...	...	...	...	...	...
Epilepsy	—	1	1	1	—	—	—	—	—	—
Chorea	5	10	15	9	6	6	6	—	—	100.0
Other conditions	25	7	32	6	26	11	10	1	15	42.3
DEFORMITIES—	...	...	...	...	...	...	...	...	...	...
Rickets	23	31	54	22	32	11	7	4	14	34.4
Spinal Curvature	5	23	28	18	10	6	4	2	1	60.0
Other forms	2	53	55	39	16	5	3	2	4	31.2
Other defects & diseases	294	410	704	313	391	263	249	14	66	67.3
TOTALS	5,686	7,869	13,555	4,346	9,209	4,554	3,434	1,120	1,824	49.5

TABLE V.

Summary of Treatment of Defects as shown in Table IV. (A, B, C, D & F, but excluding E).

DISEASE OR DEFECT.	NUMBER OF CHILDREN.										
	Referred for Treatment			Treated.			Improved without special treatment.	No. of defects not treated and still unimproved.	Total reported upon.	No. of defects for which no report is available.	Percentage treated of cases reported upon.
	From previous Year.	1920 cases	Total.	Under Local Authority's Education Scheme.	Other-wise.	Total.					
MINOR AILMENTS ...	961	10,050	11,011	8,160	1,234	9,394	112	235	9,741	1,270	96.4
VISUAL DEFECTS—											
New cases ...	1,469	5,321	6,790	2,753	181	2,934	140	689	3,763	3,927	78.0
Re-examination cases	—	1,706	1,706	1,576	80	1,656	3	—	1,659	47	99.8
DEFECTS OF NOSE AND THROAT—											
Enlarged tonsils and adenoids ...	826	2,935	3,761	954	215	1,169	605	599	2,373	1,388	49.3
Mouth Breathing ...	536	1,960	2,496	—	419	419	485	448	1,352	1,144	31.0
DENTAL DEFECTS—											
Dentists' cases ...	—	14,175	14,175	5,218	2,002	7,220	—	5,174	12,394	1,781	58.3
School Medical Officer's cases ...	4,127	6,385	10,512	—	3,448	3,448	1,127	2,611	7,186	3,326	48.0
Other Defects ...	1,559	1,484	3,043	—	1,106	1,106	697	220	2,023	1,020	54.7
TOTALS ...	9,478	44,016	53,494	18,661	8,685	27,346	3,169	9,976	40,491	13,003	67.5

Table VI.

Summary relating to Children Medically Inspected at the Routine
Inspection during the year, 1920.

(1) The total number of children medically inspected at the routine inspections	42,034
(2) The number of children in (1) suffering from—	
Malnutrition	562
Skin Disease	587
Defective Vision (including Squint)	5,748
Eye Disease	847
Defective Hearing	241
Ear Disease	1,095
Nose and Throat Disease	6,048
Enlarged Cervical Glands (Non-Tubercular)	1,781
Defective Speech	283
Dental Disease	7,105
Heart Disease—	
Organic	101
Functional	503
Anaemia	925
Lung Disease (Non-Tubercular)	1,665
Tuberculosis—	
Pulmonary—Definite	7
Suspected	30
Non-Pulmonary	122
Diseases of the Nervous System	107
Deformities	539
Other Defects and Diseases	1,527
(3) The number of children in (1) suffering from defects (other than uncleanliness or defective clothing or footgear) who require to be kept under observation (but not referred for treatment) ...	9,720
(4) The number of children in (1) who were referred for treatment (excluding uncleanliness, defective clothing, etc.)	9,028
(5) The number of children in (4) who received treatment for one or more defects (excluding uncleanliness, defective clothing, etc.) ...	2077

HIGHER SCHOOLS.

Number of Children Inspected, 1st January to 31st December, 1920.

TABLE 1.—(A.) "Code" Groups.
(Routine Medical Inspection).

Age.	8	9	10	11	12	13	14	15	16	17	Grand Total.
Boys	19	47	65	167	194	121	108	11	1	1	674
Girls	18	35	40	65	148	73	62	30	4	1	476
Total	37	82	105	172	342	194	170	41	5	2	1,150

(B.)—Special Inspections.

								Special Cases.	Re-examinations (i.e., No. of children re-examined).
Boys	...	...	...	...	...	...	...	62	182
Girls	...	...	...	...	...	...	...	77	188
Totals								139	370

(C.)—Total number of Individual Children Inspected by the Medical Officer, whether as Routine or Special Cases.

No. of Individual Children Inspected.

1,275

TABLE II.—Return of Defects found in the course of Medical Inspection in 1920.

DEFECT OR DISEASE.	ROUTINE INSPECTIONS.		SPECIALS.	
	Number referred for Treatment.	Number requiring to be kept under observation, but not referred for Treatment.	Number referred for Treatment.	Number requiring to be kept under observation, but not referred for Treatment.
(1)	(2)	(3)	(4)	(5)
MALNUTRITION	—	16	—	2
UNCLEANLINESS—				
Head	2	6	—	—
Body	—	—	—	—
SKIN—				
Ringworm—				
Head	1	1	—	—
Body	—	—	—	—
Scabies	4	—	—	—
Impetigo	—	1	1	—
Other Diseases (Non-Tubercular) ..	1	5	—	1
EYE—				
Blepharitis	1	3	—	—
Conjunctivitis	1	5	—	—
Keratitis	—	—	—	—
Corneal Uleers	—	—	—	—
Corneal Opacities	—	—	—	—
Defective Vision	120	150	33	16
Squint	6	5	1	1
Other Conditions	1	5	—	—
EAR—				
Defective Hearing	20	32	3	6
Otitis Media	6	17	1	—
Other Ear Diseases	11	18	—	—
NOSE AND THROAT—				
Enlarged Tonsils	9	72	2	6
Adenoids	5	4	1	—
Enlarged Tonsils and Adenoids ...	1	6	1	—
Other Conditions	1	15	3	3
Mouth Breathing	40	17	2	1

TABLE II.—Continued.

DEFECT OR DISEASE.	ROUTINE INSPECTIONS.		SPECIALS.	
	Number referred for Treatment.	Number requiring to be kept under observation, but not referred for Treatment.	Number referred for Treatment.	Number requiring to be kept under observation, but not referred for Treatment.
(1)	(2)	(3)	(4)	(5)
ENLARGED CERVICAL GLANDS (Non-Tubercular)	—	52	—	3
DEFECTIVE SPEECH	1	25	—	3
TEETH—				
Dental Diseases	183	80	4	5
HEART AND CIRCULATION—				
Heart Disease—				
Organic	2	16	1	2
Functional	3	26	2	1
Anaemia	14	31	3	1
LUNGS—				
Bronchitis	1	3	—	—
Other Non-Tubercular Diseases ...	—	16	1	1
TUBERCULOSIS—				
Pulmonary—				
Definite	—	—	—	—
Suspected	—	—	—	—
Non-Pulmonary—				
Glands	—	1	—	—
Spine	—	—	—	—
Hip	—	—	—	—
Other Bones and Joints ...	—	—	—	—
Skin	—	—	—	—
Other Forms	—	—	—	—
NERVOUS SYSTEM—				
Epilepsy	—	2	—	—
Chorea... ..	—	1	—	—
Other Conditions	—	6	—	—
DEFORMITIES—				
Rickets	—	16	—	—
Spinal Curvature	1	11	1	3
Other Forms	19	54	3	3
OTHER DEFECTS AND DISEASES ...	30	176	5	6
Number of Individual Children having Defects which require Treatment or to be kept under Observation				
				817

TABLE VI.—Summary relating to Children Medically Inspected at the Routine Inspections during the year 1920.

(1) The total number of children medically inspected at the routine inspections	1,150
(2) The number of children in (1) suffering from—	
Malnutrition	16
Skin Disease	13
Defective Vision (including Squint)	281
Eye Disease	16
Defective Hearing	52
Ear Disease	104
Nose and Throat Disease	154
Enlarged Cervical Glands	52
Defective Speech	26
Dental Disease	263
Heart Disease—	
Organic	18
Functional	29
Anaemia	45
Lung Disease (Non-Tubercular)	20
Tuberculosis—	
Pulmonary—Definite	—
Suspected	—
Non-Pulmonary	1
Disease of the Nervous System	9
Deformities	101
Other Defects and Diseases	206
(3) The number of children in (1) suffering from defects (other than uncleanliness or defective clothing or footgear) who require to be kept under observation (but not referred for treatment)	340
(4) The number of children in (1) who were referred for treatment (excluding uncleanliness, defective clothing, etc.)	378
(5) The number of children in (4) who received treatment for one or more defects (excluding uncleanliness, defective clothing, etc.)	4

APPENDIX C.

Any special circumstance, such as deficient house accommodation, numbers infected, persistence of symptoms, etc., will necessitate a modification of these arrangements. Where a doctor is in attendance his views must be ascertained.

City of Liverpool.

PUBLIC HEALTH DEPARTMENT.

Memorandum to Head Teachers of Elementary Schools.

The Medical Officer of Health begs to draw the attention of the Head Teachers to the following instructions which have been given to the Sanitary Staff relating to the exclusion from School of Children suffering from the following diseases or coming from an infected house.

Disease.	Exclusion of Patient.	Exclusion of other children in the house.	
	Period of Exclusion.	Children Involved.	Period of Exclusion.
DIPHTHERIA and SCARLET FEVER	Until 10 days following release from Isolation	Exclude.—All Children.	Until 10 days following the disinfection of the premises.
MEASLES	For Three Weeks from the commencement of Illness.	Exclude.—1. Children under 7 years. 2. Children between 7 and 10 years who have not had the disease.	Until sixteen days from the occurrence of the last case in the house.
CHICKEN POX	For Two Weeks and until every scab has fallen off the scalp and body.	Ditto.	
WHOOPIING COUGH ...	For at least Six Weeks from the commencement of illness or longer if the Cough persists.	Exclude.—Children under 7 years of age who have not had the disease.	
MUMPS	For Three Weeks from the commencement of the illness.	Exclude.—1. Children under 7 years. 2. Children over 7 years who have not had the disease.	Until sixteen days from the occurrence of the first case.

As the Medical Officer is desirous of having the information respecting cases of infectious disease as complete as possible, he will be glad if, when the teachers notify him of such diseases, they will, as in the past, draw his attention specially to those cases which have been detected in School.

N.B.—It must be borne in mind that the patient may be too debilitated to return to school, notwithstanding that infection has disappeared.

E. W. HOPE, M.D.,

PUBLIC HEALTH DEPARTMENT,
1st January, 1910.

Medical Officer of Health.

(Revised January, 1914, and January, 1916).

APPENDIX D.

REPORT BY THE INSPECTOR OF PHYSICAL
EXERCISES FOR THE YEAR 1920.

(A) -Organised Games for Elementary School

Children during School Hours.

The question of affording facilities for the Elementary School Children to play Organised Games during school hours was raised in the Education Committee in October, 1919, and a resolution was passed sanctioning the purchase of four playing fields for the purpose. The preparation of these playing fields, even when they are acquired, will take a considerable time.

Meanwhile, the Parks and Gardens Committee in November, 1919, granted permission for Organised Games to be played, in the spaces set apart in the various Parks for games, by Elementary scholars during school hours, under the supervision and guidance of their teachers.

This concession was immediately taken advantage of, and a weekly return of approved attendances at the various play spaces is here appended, with the numbers of children who participate in play periods, sanctioned under the Committee's scheme:—

Name of Park.	Estimated Play Area.	No. of Children Weekly.
Sefton (including Ullet Road)	40 acres	4,115
Stanley	36 "	5,182
Sheil	9 "	2,610
Princes	18 "	4,417
Kensington Reservoir	8 "	2,884
Carried forward	111 "	19,208

Name of Park.	Estimated Play Area.	No. of Children Weekly.
Brought forward	111 acres	19,208
Newsham	7 „	1,378
Wavertree	10 „	2,537
Wavertree Playground	36 „	2,235
Kirkdale Recreation Ground	3 „	3,078
Rupert Lane Recreation Ground	2 „	1,534
Rice Lane Recreation Ground	12 „	1,270
Lower Breck Recreation Ground	18 „	854
Garston Recreation Ground	20 „	1,763
	219 acres	33,857

Other play areas are being used to a less extent by numerous schools. They are:—

Aubrey Street Recreation Ground.	Old Blue Coat School Playground.
Mulberry Park.	Open Space, Broadgreen Road.
Victoria Settlement Playground.	Open Space, Portelet Road.
Woolton Woods.	Fazakerley Recreation Ground.
Bootle Recreation Ground.	Queen's Drive Recreation Ground.
Donaldson Street Playground.	Lister Drive Recreation Ground.
Virgil Street Playground.	Shaw Street Recreation Ground.
Bevington Street Playground	Garston Gasworks Playing Field.
Egremont Sands.	

(B)—Games Apparatus supplied by the Education Committee.

In December, 1919, the Committee sanctioned the supply of games apparatus to Elementary Schools, limiting the expense to 3d. per head of average attendance. This has enabled the schools to be supplied with a number of footballs, net balls, cricket balls, rubber balls, skipping ropes, and tug-of-war ropes.

At the same time the Committee approved of a suggestion that the Handicraft Centres should assist in making simple games

material during their lessons in practical work. Progress has been made in this direction, and the following is a return by the Committee's Inspector of Handicraft of games apparatus made in the Centres up to November 1st, 1920:—

57 Sets of Cricket Stumps.	485 Rounders and Baseball Bats.
66 Flag-posts for Football.	73 Flag-posts for Rounder Bases.
34 Net Ball Posts.	13 Football Posts.
41 Wicket Blocks for use on asphalt.	2 Jumping Standards.
6 Cricket Bats for Juniors.	50 Battledores.

(C)—Organised Games in the Public Parks—

Midsummer Holiday, 1920.

During the Summer Holiday, 1920, the Committee, as an experiment to help to cater for the children of the City who, for various reasons, were unable to go away, originated Holiday Play Centres with paid Supervisors in five of the most frequented Parks, viz., Sefton, Stanley, Princes, Newsham, and Wavertree Playground. Five large boxes were provided in which to store small apparatus such as balls, ropes, bats and wickets. The experiment was fairly successful, despite the wetness of the season, and it has been valuable in affording guidance for the future.

(D)—Free Bathing at the Public Baths for

School Children—Season, 1920.

It was noticeable in visiting the Baths during free bathing hours in the Season 1919, that the periods for bathing were not equally distributed between the schools using the Baths—for instance—one school had eleven half-hour periods a week in a certain Bath, while another equally large school had only one period allocated. Also, in a great number of instances, the schools nearest the Baths had the advantage of end periods of sessions, whereas distant schools had to take middle periods, thus necessitating a large amount of time being taken in walking to and from the Baths.

On enquiries being made as to the system of arranging time tables for use of the various Baths, it was found that this was left

entirely to mutual arrangements being made between Head Teachers and Superintendents of the Baths, and this had developed into the system of "first come, first served."

Conferences were held between representatives from the Education Committee, the Baths Committee, and the Sports Committee of the Teachers' Association, and each representative expressed the wishes of his Committee to fall in with any suggestions practicable which would make towards better facilities for school children's free bathing, and a smoother working at the Baths during school hours.

A schedule of suggested free bathing times, with bathing and dressing accommodation, was prepared by the Baths Committee, and with this to work upon the Education Committee arranged conferences between Head Teachers concerned and the Committee's Inspectors, to draw up time tables for the use of each of the Baths during school hours. Ten such conferences took place, and a reasonable working time table resulted in each case, each school applying for inclusion receiving as much time as possible, according to their wishes, but curtailed, of course, owing to the number of Baths not being sufficient to meet all requirements.

There are two points of view to be taken when discussing the increase of bathing activities for school children in a limited number of Baths. One is to crowd as many children as possible in a Bath at the same time, and so get larger numbers actually bathing; and the other is to concentrate on the teaching of swimming, and for the latter a smaller number of children in the Bath at the same time is preferable.

The Education Committee stipulate that not more than forty children should go to the Baths in charge of one teacher. Of course much more effective work, and better results in the teaching of swimming, would be obtained by the teachers if the number of scholars could be reduced to twenty per teacher, but under the present limitations in staffs, and the insufficient number of Baths, this is not recommended.

An increasing number of schools practise land drill at school in connection with the Physical Training lessons, and teachers in charge of scholars at the Baths are invariably to be found assisting their pupils by timely advice, instruction, and words of encouragement, but the large numbers prevent systematic water drill being carried out.

It is advised that swimming classes should always be arranged so that good swimmers are present in the same classes with non-swimmers. Then the children can assist one another, and thus minimise the occasions when it is necessary for the teacher to enter the water. This expedites the process of instruction, and enables the use of water-wings, corks, and other special apparatus, to be dispensed with.

Mr. Howcroft, of the Garston Swimming Club, has given valuable aid in the furtherance of swimming by giving lectures and demonstrations to teachers in modern methods of teaching swimming and improving style.

Precautions against drowning accidents are taken by the placing of a pole across the Baths at the shallow end when girls' classes are in attendance, the providing of a life-saving pole at the edge of the Baths at all times, and the practice by attendants of emergency drill.

When coal is more plentiful it is to be hoped that several of the seventeen school swimming baths will become available, and thus increase the accommodation and facilities for teaching children to swim.

Although Liverpool children compare very favourably with any children in other towns or districts in their swimming abilities, it is still exceptional to find a school with 50 per cent. of swimmers amongst children, say from 11 years of age to 14 years. While keeping up all traditions of training the best swimmers to be champions, it is to be hoped that the main efforts will be directed more towards the raising of the percentage of swimmers in

comparison to non-swimmers, until it becomes an exception for a pupil of 14 to be a non-swimmer, rather than the reverse as used to be the case.

The figures appended below only relate to free bathing, and do not include the numerous penny tickets and contract bathers.

Statistics.

There are 10 Public Baths in Liverpool where free bathing is allowed.

146 Boys' Departments and 111 Girls' Departments applied for inclusion in the Free Bathing Scheme.

Figures showing one week's free bathing attendances compared with 1919:—

Name of Bath.	Boys, 1919	Boys, 1920	Girls, 1919	Girls, 1920
Queen's Drive	720	844	480	561
Stebble Street	1,836	2,136	162	169
Lister Drive	610	941	120	260
Cornwallis Street	563	647	79	135
Westminster Road	1,339	2,080	547	699
Lodge Lane	1,296	1,584	306	441
Margaret Street	2,128	3,136	482	600
Picton Road	545	737	264	340
Burroughs Gardens	1,366	1,371	141	245
Garston	1,049	1,148	341	467
	11,452	14,624	2,922	3,917

(Increase—3,172 Boys per week.)

(Increase—995 Girls per week.)

If the $\frac{1}{2}$ d. and 1d. ticket bathers and the contract ticket holders are included, it is probably correct to estimate that 20,000 elementary school children frequent these 10 Baths weekly.

(E)—The Voluntary Work of the Liverpool Teachers' Association in connection with the Sports and Swimming of Elementary Scholars, 1920.

The Report of the Sports Committee of the Liverpool Teachers' Association deals with the work of the teachers among their scholars out of school hours (evenings and Saturdays), purely voluntarily, and this work is financially self-supporting.

At the present time, when disputes and disagreements over hours of work and emoluments tend to stifle voluntary work, it is refreshing to read of such far-reaching and successful voluntary work being done by the teachers for their pupils in the City. Thousands of pupils every week have facilities for organised games of football, cricket, baseball, rounders and swimming, and as a record of voluntary work by teachers the report is probably without parallel in the whole country.

It will be seen that the Report records an increase in entries in all competitions, considerable progress in efficiency, and it is also gratifying to hear that, in the opinion of the Sports Committee, the prospects for the future are most promising.

SUMMARY OF ACTIVITIES.

Football Competitions. Entries from 50 Schools—in all 69 teams. (In 1919, 29 schools entered).

Cricket Competitions. Entries from 63 teams. (In 1919, 56 teams entered.)

Baseball Competitions. Entries from 33 teams. (In 1919, 17 teams entered.)

Girls' Rounders Competition. Entries from 21 schools. (In 1919, 13 schools entered.)

Swimming—Certificates gained :—

				Boys.				Girls.			
1st Class	...	...	162	1st Class	...	...	...	...	...	99	
2nd Class	...	...	1,346	2nd Class	...	...	...	...	...	407	
3rd Class	...	...	2,179	3rd Class	...	...	...	...	...	628	
				3,687				1,134			

Total—4,821 Certificates. (In 1919, 3,504 Certificates).

47 Boys and Girls qualified for Championship Standard Time Certificates.

Life Saving Examinations.

180 Elementary Certificates were gained.

100 Proficiency Certificates were gained.

2 Bronze Medallions were gained.

Eleven District Galas were held which attracted over 6,000 individual entries.

Competition with London Schools. Liverpool teams of Boys and Girls won easy victories over the London Boys and Girls at St. Pancras Baths, 1st October, 1920.

ALFRED E. HARRIS,

Inspector of Physical Exercises.